

Cases in Strategic-Systems Auditing

Mercedes-Benz U.S. International

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Mercedes-Benz U. S. International—A Case in Strategic-Systems Auditing

It's late afternoon on November 21, 1998 and Darien Walker is sitting in the new office she acquired when promoted to senior manager. Although Walker manages a number of engagements, her newest, Mercedes Benz U.S. International (MBUSI), a subsidiary of DaimlerChrysler A.G. (DCAG) in Germany, has been occupying much of her attention and thought. She recalls how two months ago, Tom Hutton, the partner in charge of the MBUSI engagement, asked her to manage the audit.¹ MBUSI, in Vance Alabama, assembles the very popular Mercedes-Benz M-Class Sport Utility Vehicle (SUV) and was a developmental stage company from 1993 until its first year of operation in 1997. During 1997, the Vance assembly plant operated at partial capacity but since then has been operating at near capacity. In 1998, the prior parent company, Daimler-Benz A.G. (DBAG), merged with Chrysler Corporation to form DCAG.

From her experience and training, Walker knows the importance of understanding the client's industry, strategic objectives, business processes, business risks, and controls. Given that MBUSI is a new client for her, she begins her strategic analysis by conducting extensive research on the client and its industry using publicly available sources, her firm's database, and information obtained from preliminary discussions with MBUSI employees.

Contemplating the information gathered to date, Walker's preliminary assessment suggests that the MBUSI engagement should be straightforward. Her review of the permanent files and prior-year's audit work papers reveals no significant concerns with respect to accounting policy or accounting system internal control. From discussions with Hutton, she has learned that MBUSI has a strong, cooperative management team that typically consults with its auditors whenever an important accounting issue arises. Hutton added that during the prior year's audit, tests of controls over the client's accounting systems suggested that the controls were impeccable.

Walker is considering the next move to enhance her understanding of the client's business and its operational and financial performance. She deliberates over the knowledge gained thus far, comparing in her mind what she knows about her client's reported level of performance relative to that of some of MBUSI's competitors. She decides to summarize the information gathered according to whether it primarily addresses the SUV market, MBUSI's developmental process, or the company's current operations. From these summaries and further discussions with the client she believes that she can effectively complete a strategic analysis for MBUSI and identify those business processes that it must execute as well or better than competitors in order to remain viable. Walker believes that such processes may contain high levels of risk that will require her audit team to conduct in-depth business process analyses.

Based on her preliminary strategic analysis, Walker suspects that MBUSI's assembly and supply chain management likely are two such critical business processes. If these processes are not well designed and well executed, there could be a significant impact on MBUSI's ability to achieve its objectives and, thus, ultimately on MBUSI's financial statements.

¹ The names of the senior manager and the partner in charge of the engagement have been changed to protect their identities.

Information Gathered on the SUV Market

The SUV market represents a unique automobile industry segment. What started out as a niche market five decades ago when the first commercial Jeep was introduced by Willys-Overland has evolved into the hottest automobile market for consumers below age 65. The SUV market is the fastest growing automobile or truck segment in recent history. Industry analysts reported that sales of SUVs grew by 14 percent in 1997, and recent studies indicate that the majority of SUV sales are in the U.S. market. A 1998 study estimated that one in three new cars purchased in the United States is a SUV. While SUVs generally cost more and have lower gas mileage than many traditional automobiles, a strong U.S. economy coupled with low gasoline prices has helped fuel the staggering growth of the SUV market.

Walker believes that a number of economic forces could have an adverse effect on the SUV market. International oil prices pose one potential risk. SUV sales growth could decline significantly and total sales could even decrease in response to a sudden and/or extended increase in fuel prices. Also, increases in unemployment, interest rates, and inflation could reduce SUV demand. Walker believes that these economic forces could have greater adverse effects on the SUV market than on the conventional automobile market because SUVs typically sell at a premium compared to conventional automobiles.

There has been tremendous industry “buzz” surrounding the introduction of the Mercedes M-Class. The M-Class is “car-like” in the way it drives and feels and distinguishes itself from the “truck-like” traditional mid-sized Ford Explorer and Jeep Cherokee and the newer full-sized Ford Expedition and Lexus LX470. Many analysts agree that the majority of SUV customers use their vehicles primarily for urban travel; thus, car-like SUVs were hot in 1998.

Many industry articles have referred to the new M-Class and most have offered high praise. *The New York Times* and *Motor Trend* hailed the quality and luxury of the M-Class. One reporter for *Edmund's* compared the ML320 to Michael Jordan because of all of the “trophies” that it has won. These “trophies” include *Motor Trend's* “1998 Truck of the Year.” Based on the initial success of the M-Class and the number of direct competitors introducing similar SUVs, it appears to Walker that MBUSI deserves these accolades.

Walker, making a significant effort to keep up with developments in her clients' industries, uses various Web sites, industry publications, and client interviews to gather extensive information about the SUV market including competitors' products and suggested prices. (See Exhibit 1.)

Information Gathered on the Development and Operations of MBUSI

Overview²

MBUSI is a wholly owned subsidiary of DaimlerChrysler Aktiengesellschaft (DCAG) located in Stuttgart, Germany. DCAG incorporated MBUSI for the purpose of constructing an automotive assembly plant in Vance, Alabama. DCAG uses the plant to assemble its M-Class SUVs for sale worldwide.

² Walker bases much of this section on MBUSI press releases and interviews of MBUSI employees.

Before the merger, MBUSI was DBAG's first-ever venture involving the assembly of a passenger vehicle in the United States. German companies such as Siemens AG, Volkswagen AG, and BMW pay hourly workers an average of \$29 per hour, but U.S. labor costs are roughly half that amount. While labor performance could be an issue, MBUSI has been pleased by the production quality thus far. Further, the United States is by far the leading geographic market for SUVs. Thus, by building closer to customers MBUSI is able to reduce transportation costs. In addition, products can be distributed to Canada and Mexico more efficiently than if the vehicles were assembled in Germany.

DBAG entered the SUV market, in part, to expand its demographic base. Traditionally, Mercedes-Benz vehicles have appealed to older, sophisticated customers. By entering the competitive SUV market, MBUSI can target individuals under 40 years of age that want a rugged vehicle that also maintains the safety and luxury features associated with a Mercedes. To help ensure market penetration, the Company offers the M-Class at a lower relative price than those of other Mercedes-Benz automobiles. (See Exhibit 1.)

In September 1993, MBUSI selected Vance as the site for its plant and the final M-Class design was completed in Germany in February 1994. Construction of the plant began in October 1994. By January 1997, production of the M-Class had begun under partial capacity and by the end of the year the plant was operating at full capacity. See Exhibit 2 for milestone events leading up to November 1998.

Andreas Renschler, MBUSI President and CEO, asserts that the company is "committed to developing and producing the very best sport utility vehicle. We have a new plant, new people, a new product and have developed new production techniques, all with the primary emphasis on quality and safety for our customers." Renschler was appointed the M-Class project leader in 1993 at the age of 35 after working with DBAG for five years and was named CEO of MBUSI in December 1994. He used DBAG's decision to venture into foreign production as an opportunity to put together an international management team consisting of managers who collectively had worked with several other major automotive manufacturers. To help in blending cultures, Renschler selected an executive team consisting of four Germans and four Americans. The result, according to Renschler, was innovative assembly and supply chain management processes.

MBUSI has two primary business objectives, assembling "Mercedes-quality" vehicles and satisfying its customers with regard to safety, performance, and price. Mercedes-Benz's "three-pointed" star logo is one of the world's most valuable trademarks. Moreover, there is a prestige factor associated with Mercedes-Benz products. As noted in several articles, including a review in the *New York Times*, consumers assume that when Mercedes-Benz launches a new vehicle it will be of the highest quality, safety, and performance. This reputation also enables Mercedes to maintain advantageous relationships with suppliers who recognize the benefits of piggybacking on the Mercedes-Benz image by placing products in DCAG vehicles.

Walker speculates that MBUSI should benefit from the widely held belief that German engineering is among the finest in the world. DCAG's marketing efforts in the United States and abroad has continuously perpetuated this reputation. MBUSI has adopted Mercedes' strategy of building the highest-quality vehicle with the best safety and environmental features of its product class.

MBUSI takes public relations and community involvement very seriously. Directly off the interstate in Alabama, and near the plant, is a 24,000 square-foot visitor's center that includes a Mercedes-Benz museum. The museum includes an array of classic and contemporary vehicles imported from Stuttgart and houses a race car theater. Visitors can take a guided tour that includes access to various areas of the plant. Examples of community involvement include sponsorships for sporting and music events, relief for victims of natural disasters (e.g., aid to victims of a severe tornado that devastated parts of the Birmingham community in 1998), contributions to charitable organizations, and programs to match employee contributions to charitable organizations.

Development of the M-Class³

The development process for the M-Class began in 1993 at DBAG with, in Walker's view, an unprecedented amount of market research that enabled the Company to develop a product fully tailored to customer needs. The research also indicated that almost 70 percent of worldwide sport utility sales occur in the United States, which provided the rationale for building the U.S. M-Class plant. DBAG in Germany performed the vast majority of the research and development of the M-Class and likely will do the same for subsequent product lines. Walker's preliminary strategic analysis suggests that the R&D process is important to MBUSI's long-term success, which may necessitate that the audit team conduct an in-depth analysis of this process to assess the risk it poses to achievement of MBUSI's objectives.

The market research showed that current owners of truck-derived SUVs desired a more comfortable ride, higher gas mileage, greater passenger safety, and improved reliability while preserving the ruggedness and cargo capacity of their vehicles. Using this information and decades of expertise in four-wheel-drive technology, Mercedes designed and developed the M-Class from a clean slate rather than from an existing car or truck platform. Likewise, M-Class designers did not copy any existing look or trend, and they sought a style that would last well into the next century. The dedicated design team used new techniques but also benefited from Mercedes' extensive R&D facilities, which enabled the developmental process to be driven by customer input. The goal was to evolve the SUV into a true off-roader with the safety, performance, quality, and comfort attributes of a Mercedes-Benz passenger car. The Company also wanted to maintain a price point in the mid-\$30,000 range.

To develop the M-Class, Renschler set out to create a unique corporate culture. As *Fortune* (July 7, 1997) noted, he deliberately pieced together a team that included U.S. executives with experience at American automotive companies who he hoped could provide fresh insights on how to run a factory. Renschler also hired some executives who had worked with Japanese transplants in the United States to learn how to best establish foreign operations in North America.

The first step in the development process was to create cross-functional teams responsible for the development of a particular module or system within the vehicle. Parts and subassembly suppliers were an early addition to the function groups because MBUSI sought to involve its suppliers early in the development process. MBUSI's objective was to obtain supplier expertise with respect to cost, quality, and the manufacturability of a particular system, module, or major

³ Unless otherwise indicated, the information in this section comes from MBUSI press releases and prior-year's work papers.

component. The next step was the actual vehicle design and development including creation of rough concepts and models, building prototypes, and moving closer to a final design. MBUSI then divided the vehicle concept into major systems, e.g. cockpit, seating, fuel system, and interior trim. MBUSI shifted a good deal of the design and development responsibility to the suppliers, promoting a partnering mentality and enabling suppliers to react quickly to design and production modifications. Throughout the design and development process, MBUSI benchmarked supplier functions and improved them with input provided by various members of the cross-functional teams. Thus, MBUSI provided Mercedes “know-how” to suppliers to ensure that as members of a highly integrated supply chain they would maintain Mercedes quality. The culmination of hundreds of good ideas helped contain costs while achieving a high level of quality.

Designing the assembly process was more challenging than originally expected by Renschler. Because the management team came from different backgrounds, they all had different ideas about how to do things and spoke different “automotive” languages based on their former employers (GM, Nissan, DBAG, etc.). Deciding how to configure the assembly line was especially difficult. However, the management team remained focused and committed to determining the best method to solve its dilemmas, particularly because DBAG had placed an aggressive time frame on the development process. Renschler’s efforts to build a cross-cultural team also helped. One of the earliest team building exercises was an adventure in the Austrian Alps in which team members had to build a raft and extend a rope across an icy river so that other team members on a cliff above could cross the river.

Walker believes that developing a new plant for a new product line in a new country in an effective and efficient manner was no small challenge. In addition, there was a new management team, a new assembly process, a new work force, and a new group of suppliers. Orchestrating this endeavor required a successful strategic management process by DBAG with significant input from MBUSI. By integrating a team concept through every level of MBUSI’s organization (i.e., similar uniforms for all employees, administrative offices located within the assembly plant, etc.), management sought to ensure the success of this risky endeavor. Should the strategy of building near the customer prove successful, the Company plans to repeat the process in China or India for other models suited for consumers in the chosen country. In fact, DCAG announced that the Company would begin a joint venture with Nissan to produce light trucks in China.

Walker observes that the Company was very successful in the development of its initial M-Class model. The overall M-Class development time only was 34 months, which included construction of the plant in a foreign country, assembling the management team, hiring assembly team workers, and integrating the suppliers within a new assembly process. Most competitors take a similar amount of time just to develop a revision of an existing vehicle for an existing plant and manufacturing process. In addition, the industry and consumer reactions to the quality and value of the M-Class SUV, as noted earlier, have been very favorable.

Governmental and Taxation Issues⁴

The State of Alabama granted capital and annual operating incentives to MBUSI in exchange for locating its plant and operations in Vance. Capital incentives amounted to \$253.3 million and

⁴ The information in this section comes from prior-year’s work papers, MBUSI press releases, and public records of the State of Alabama.

included items such as infrastructure, site development, and education and training. Operating incentives are about \$9.3 million per year.

The decision to offer DBAG a substantial incentive package to locate in Alabama caused debate within the United States, mostly from states that were unsuccessful in attracting the Company. According to one study, Alabama spent approximately \$179,000 for each job created at the MBUSI plant. State officials, however, had carefully considered the economic benefits associated with having a prestigious company choose Alabama to operate its first foreign vehicle-production plant. They believed that if the venture were successful, in addition to attracting MBUSI suppliers to Alabama, it would be easier to attract other companies to the state. In fact, Alabama businesses were extremely grateful that Mercedes selected Alabama. The Economic Development Partnership of Alabama, a nonprofit organization consisting of 52 leading businesses, gave MBUSI \$11 million for choosing Alabama over the Carolinas, Georgia, Tennessee, and Nebraska. Economic impacts on Alabama from having MBUSI locate in the state include increases in items such as payroll (direct and indirect), retail sales, and tax receipts. An estimate of these economic impacts during the plant's first year of operations is \$366 million. A 20-year projection puts these economic impacts cumulatively at \$7.3 billion.

MBUSI has taken many steps to comply with and exceed U.S. environmental and safety laws. For example, MBUSI has devoted considerable resources that enable it to recycle virtually every potential waste stream and there is a long-term environmental planning process in place. MBUSI uses after-burners in emission control that release oxidants into the air that actually are healthy for the environment. The M-Class is one of the first SUVs to meet all of the auto emissions standards of all 50 states.

The M-Class is the first SUV with side-impact air bags, in addition to driver-side and passenger-side airbags. Furthermore, the M-Class design includes a bumper with an equivalent height to that of a traditional automobile making SUV collisions with traditional automobiles safer to passengers in both vehicles.

Taxation and tariff issues are important considerations for MBUSI's parent company, DCAG because shipments of SUVs across borders can result in tariffs established by receiving countries. Although DCAG is incorporated and consolidated in Germany, taxation for intercompany transactions largely is based on value-added inside the United States. By producing the M-Class in the United States, DCAG avoids tariffs in its major market. Further, the North American Free Trade Agreement (NAFTA) enables DCAG to avoid costly tariffs for exports to Canada and Mexico. However, this benefit cannot be enjoyed for shipments to Europe and Asia. Balancing the tax impacts on production, shipping, and selling decisions with operational benefits were important considerations for DCAG when structuring MBUSI's operating relationships with its stakeholders.

Relationships with Materials Suppliers⁵

MBUSI selected approximately 65 major suppliers to work as its partners in the development and production of the M-Class. This number of suppliers is relatively small compared to other auto

⁵ Walker gathered the information in this section from prior year's work papers, MBUSI press releases, published articles, and interviews of MBUSI managers.

manufacturers, which may have over 500 suppliers for a particular vehicle. Of the 65 MBUSI suppliers, nine key subassembly suppliers are located in Alabama. These suppliers include:

- Becker Group—interior trim
- Delphi Packard Electric—cockpits, wire harnesses
- Dunlop Tire Corporation—tires
- Johnson Controls—seats, headliners
- Ogihara Corporation—body stampings
- ORIS Automotive—trailer hitch
- Rehau—bumpers, exterior trim
- Tire and Wheel Assemblies—tire assemblies
- ZF Industries—front and rear axles.

These subassembly suppliers deliver to MBUSI on a just-in-time and in-sequence basis. MBUSI does not keep any inventory on hand for the suppliers' components. Thus, Walker speculates, effectively managing the relationships with these suppliers is critical for smooth assembly operations at MBUSI.

Criteria for selecting suppliers include quality, cost, development capability, and management philosophy. More than two-thirds of the vehicle's components come from North American suppliers primarily in the United States. DCAG plants in Germany supply engines and transmissions through a consolidation center that was set up by MBUSI to support parts shipped to Vance. Parts are shipped from Bremerhaven, Germany and arrive in Charleston, South Carolina where they are off-loaded and trucked to the Vance plant. Because of the distance, there is a longer lead-time for parts from the German plants than for parts from North America. Therefore, communication and accurate forecasting are essential to productivity.

MBUSI has developed a close, integrated relationship with its suppliers. By including suppliers in the development process for the M-Class and integrating them into the assembly process using just-in-time and in-sequence delivery, MBUSI is committed to working closely with its current suppliers during the production of a vehicle model. For example, as MBUSI expands its operations, the Company must work closely with suppliers to make sure that there will be no delays in incoming parts. Because the suppliers were involved in the development process, Walker believes that switching or adding suppliers would be costly and possibly less effective.

Illustrating the importance of MBUSI's relationships with its suppliers, *The Birmingham News* reported on the procedures that Ogihara performs to make its supply arrangement with MBUSI work effectively and efficiently. Ogihara's Alabama plant, built to supply MBUSI, operates almost around the clock and is expanding rapidly to meet MBUSI's increasing demand for product. Ogihara started with 130 employees but now has 275 employees working to keep pace with MBUSI. Ogihara uses metal-stamping presses to produce the M-Class frame. The Company has five presses that cost more than \$20 million dollars. These presses contain MBUSI-owned dies for stamping M-Class metal body parts. When MBUSI designers modify the M-Class body, Ogihara receives new dies and stores or destroys the old dies. Ogihara has made significant investments to try and keep pace with increases in MBUSI production. Ogihara already has spent \$10 million to expand the plant once and will likely spend another \$2 million to \$3 million in the next year. Knowing that it is obligated to have parts available on-time and in-sequence, Ogihara tries to keep a day's worth of parts at its plant ready to be transported to

MBUSI at any given time. Ogihara had originally planned to expand its operations and attract other automakers' business but supplying MBUSI has consumed all of its capacity.

Assembly Process

Overview⁶

MBUSI assembles the M-Class under a single roof in three primary shops: the Body Shop, the Paint Shop, and the Assembly Shop. Exhibit 3 presents a schematic of the M-Class factory. The factory has over 1 million square feet and the assembly line when extended is approximately three-quarters of a mile in length. It takes approximately 22 hours to build an M-Class vehicle, and at full production the 1998 factory can build 300 plus M-Classes per day, about one every 3.3 minutes.

Walker believes that because assembly is the primary valued added at the Vance plant, the assembly process is critical for MBUSI to achieve its objectives. Primary objectives of the assembly process are as follows:

- Maximize the number of vehicles assembled.
- Maintain vehicle quality (with safety and ergonomics issues considered).
- Meet target standard cost goals.

Management developed the assembly process with a clean-slate approach, yet always with an emphasis on innovation, quality, and safety. Members of the team wrote their own standard methods and procedures (SMP) manual based on the very best industry techniques. The SMP manual, a master list of every station's step-by-step processes, standardizes the assembly process to achieve the highest levels of efficiency, quality, and consistency. Applying the SMP requires that MBUSI continually measure and benchmark procedures and output levels against targets established by MBUSI management. Management also encourages team members to submit suggestions for improvements to the SMP manual based on the work at their particular station.

The SMP represents an exact way of building a vehicle for MBUSI. Management designs the SMP, which spells out everything, including the official way to tighten a lug nut and the requirement that associates place tools inside chalk body outlines when not in use. Implementing the SMP took some time and patience for American assembly workers and German managers. American workers at first believed that the German managers were perfectionists and very blunt in their criticisms of suboptimal performance. The German managers believed that the American assembly workers were lax and not open to feedback. Through perseverance and commitment to the Company, however, implementation of this technique was successful and the plant has consistently and efficiently assembled high-quality vehicles.

MBUSI uses modular construction throughout the M-Class assembly process. An interrelated group of parts or components are subassembled outside the vehicle by a supplier, delivered to MBUSI on a just-in-time and in-sequence basis, and installed as a complete unit or system. MBUSI, in turn, installs a subassembly as a complete unit or system. The in-sequence aspect of component deliveries is important to achieving assembly efficiency. As a simple example,

⁶ The information in this section comes from prior year's work papers, MBUSI press releases, and interviews of MBUSI employees.

MBUSI offers two driver and front passenger seat options: an unheated 6-way power control seat and a heated 8-way power control seat. Because MBUSI custom builds each M-Class to dealer orders, the exact seats needed for a particular hour's production on the assembly line not only varies from hour to hour but also from vehicle to vehicle. MBUSI notifies Johnson Controls, its M-Class seat supplier, as to the exact seat sequence for a future hour's production and Johnson Controls delivers the seats to the assembly line in that sequence just in time for placement into the appropriate vehicles.

Just-in-time modular assembly reduces the need for extensive inventory space for subassemblies at MBUSI and results in greater efficiency. MBUSI maintains approximately two hour's supply of most inventory items and less than one day's supply of other materials at the plant. Therefore, MBUSI requires suppliers to store excess inventory at the suppliers' own warehouse (e.g., Ogihara maintains a one-day supply at its warehouse). With a short inventory pipeline, MBUSI can make adjustments quickly if there is a problem with a particular part or subassembly.

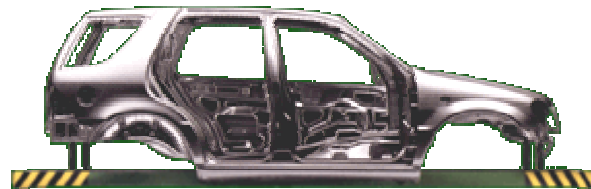
MBUSI bases its assembly process on a "pull" system. This process requires that team members "pull" a vehicle through the stations, rather than "pushing" it through the process using moving conveyors like many larger manufacturing plants. Each station is equipped with a yellow cord to call for assistance and a red cord to stop the line. If a station team member pulls a cord, the corresponding station indicator lights up on one of many visual management grids, alerting team leaders of the need for assistance. The process is set up in a way to identify and alleviate problems as quickly as possible.

Given the excess demand for M-Class SUVs, Walker believes that performing the assembly process efficiently and effectively is critical to MBUSI's bottom line. Any rejected vehicles or production delays results in lost sales because every vehicle produced is pre-sold. During its first year of production, MBUSI increased production from 220 to 300 SUVs per day. This success was due to management's ability to work effectively with employees and suppliers and continuously monitor critical controls in the assembly process.

The assembly process begins in the Body Shop where robots weld the metal body together. Next, the Paint Shop paints the body. From the Paint Shop, the painted body finishes its assembly journey in the Assembly Shop where it becomes a new Mercedes-Benz M-Class ready for shipping to a customer⁷

Body Shop

The body, or passenger safety cell, is the "skin" of the M-Class. The M-Class body comprises 465 components and sheet metal stampings that weigh approximately 850 pounds. When in full production, it takes about 3.3 hours for the M-Class to travel through the 49 stations, including robotic welding, before it reaches the Body Shop Finish line.



©MBUSI

The Body Shop is approximately 30 percent automated, compared to other automakers' plants that may produce up to 200,000 vehicles per year and are about 95 percent automated. To ensure

⁷ Walker learned about the M-Class' assembly processes during plant tours as well as from MBUSI's Web site factory description. The MBUSI Web site URL is <http://www.mbusi.com>.

accuracy and consistency of strength, robots perform dimensional welds, which influence movement of the sheet metal and can affect the quality of the vehicle, and safety welds, such as seat belt brackets. The Body Shop has 33 spot weld robots that perform 1,374 of each vehicle's 4,844 total spot welds. Twelve stations on the Body Shop Finish line add the hood, front and rear doors, fenders, and lift gate to the body. Body Shop Finish inspection performed by team members and computer operated lasers includes surface (dents, waves, scratches and grinder marks), panel fit (flush and gaps), and readying the body for painting (fuel lid added and paint jigs installed). Dent doctors correct any body imperfections.

Paint Shop

On arrival from the Body Shop, the Paint Shop cleans and conditions the M-Class body to ensure the best possible paint job. Phosphate chemicals pre-treat the body to create a surface to which paint can adhere. Then the M-Class receives four coats of paint: the E-coat (electronic coat) and the primer (for anti-corrosion), the color coat (which creates the color of the vehicle), and the clear coat (to keep the color from chipping and to protect it from the elements). It takes about 12.5 hours for an M-Class body to complete the paint process and move to the Assembly Shop.

In most parts of the world, problems caused by dust entering the paint process are easy to control. Usually, large filters can keep dirt and grime from entering the painting areas and contaminating the freshly painted surfaces of the car bodies. But in Alabama, the red clay soil of the region is so fine that it can sneak through these filters. The solution is to make the interior of the Paint Shop slightly pressurized like an inflated-dome stadium. This forces out any dust, including the fine clay particles, and keeps the surface of the M-Class body clean and the paint finish up to customer expectations.

The first step in the paint process is a thorough cleaning of the bare M-Class body. To ensure total phosphate coverage, the body is completely immersed in a 40,000-gallon tank. A phosphate crystal actually is grown into the first layer of raw metal providing a surface to which the E-Coat can adhere. The E-coat, a primer treatment that greatly inhibits corrosion, is applied after the phosphate pretreatment. It is applied at 700 volts and 750 amps in a 40,000-gallon tank. An oven then bakes the E-coated body at temperatures ranging from 350 to 600 degrees Fahrenheit. After cooling, the body is sanded before coating the underbody and seams with a viscous PVC sealant that also prevents rusting.

After preparing the body, a primer coat is applied and the primed body is cured for 45 minutes in an oven. Following this step, the M-Class receives its base coat of colored paint. Automatic sprayers paint the body with a color coat and human painters manually paint inside the door and jams. A trip through an infrared oven "flashes" out 90 percent of the moisture in the water-based paint. Finally, a solvent-borne clear coat is applied. The purpose of the clear coat is to protect the color from damages due to the outside elements. After clear coating, the



©MBUSI

painted body cures 47 minutes in an oven that ranges from 260 to 430 degrees Fahrenheit. After curing, the Paint Shop polishes and inspects the painted body. Then, it travels to the cavity wax booth where the Paint Shop fills specific cavities with a protective wax.

Assembly Shop



©MBUSI

It is within the Assembly Shop that the body becomes a Mercedes-Benz M-Class. Many processes take place here. In three parallel assembly lines, the Assembly Shop removes, trims, reinstalls the doors, installs the body trim, and assembles the chassis complete with drive train (engine, transmission, and axles). The marriage of the body and chassis forms the M-Class. The Assembly Shop thoroughly tests each vehicle to assure Mercedes-Benz quality. When

in full production, assembly time from start to finish takes approximately 4.4 hours.

The set of doors and the body go through the Paint Shop together to assure an exact paint match but the Assembly Shop removes the front and rear doors for better installation access. The doors are each sent to their own line to have items added such as the sound system speakers and door panels (M-Class doors consist of 137 components). This step protects the doors and means a better finish for the customer. Designated teams work simultaneously to finish the doors and the body. Finally, and most importantly, the same doors are reinstalled to the original body. This ensures the integrity of the fit and finish that has been so diligently engineered in the body shop.

The marriage of the body and chassis takes place on the final line. The factory builds each body for a specific chassis. They both arrive at the marriage station exactly on time and the Assembly Shop fits the body onto 10 rubber mounts and mates it to the freshly finished chassis. Processes completed after the marriage of body and chassis are the electrical and mechanical union of systems, tire installation, door re-installation, final fluid fills, final inspection, drive off, and quality testing.

Shipping

M-Class adjustments and quality checks include wheel alignment, petal pressure, suspension, power output, water leaks, and personalized checks by MBUSI team members. After the M-Class goes through these quality checks, a protective covering is applied to the hood and roof to prevent shipping damage. The M-Class spends about 1.5 hours in the shipping line.

Approximately 70 percent of the new M-Class vehicles are loaded onto trucks or train cars for distribution to various Mercedes dealerships throughout North America. The rest of production is trucked to Florida or Georgia for delivery to Germany, Australia, Japan, and over 100 other international destinations.

Supply Chain Management Process⁸

A supply chain entails the entire manufacturing and customer delivery process, which includes all of MBUSI's suppliers (from raw materials to fully assembled components), MBUSI's in-

⁸ Information in this section comes from prior year's work papers, MBUSI press releases, and conversations with MBUSI employees.

house assembly, and delivery of the product to customers through distribution channels. Supply chain management is the process in place to assure optimization of activities associated with the chain. MBUSI organizes the process into functional groups that include:

- program timing – optimizing product launch and identifying actions needed for release by target date
- vehicle scheduling – receiving, scheduling, and tracking the order, estimating delivery date, communicating with marketing
- process control system – receiving, processing, and tracking orders throughout the plant until shipment
- bill of material – organizing design data received from development and sending it to suppliers to coordinate timing and warehousing of parts in the plant
- just-in-time and in-sequence parts – minimizing on-site inventories through continuous ordering
- packaging – pre-planning packaging, establishing packaging with suppliers.

Based on her preliminary strategic analysis, Walker believes that the supply chain management process is critical for MBUSI's success in meeting its business objectives. The excess demand for the M-Class makes supply chain management extremely critical because there could be lost customers if any member of MBUSI's supply chain causes a work stoppage. Primary process objectives are as follows:

- Maintain effective relationships with key suppliers, DCAG, and the transportation group.
- Ensure that materials are always available for assembly under the just-in-time and in-sequence delivery schedule.
- Achieve zero defects from supplier components.
- Meet targeted costs associated with development, supplier components, and transportation.

- Deliver M-Class SUVs to customers in a timely fashion.

Two primary carriers comprise the transportation group with other carriers serving as backup if needed. MBUSI carefully manages contracts, routes, delivery, and pick-up times. When the parts arrive, a materials handling group unloads the trucks and places the parts in the staging area. The Assembly Shop picks up the parts and delivers them line-side.

Managing the communication between the plant and suppliers is critical for successful operation of a just-in-time and in-sequence delivery process. For suppliers that deliver subassemblies to MBUSI just-in-time and in-sequence, accurate and timely order transmission especially is important. MBUSI's information system transmits an order to in-sequence suppliers after a vehicle has been moved through a certain point in the Paint Shop. Suppliers then have approximately 170 minutes to get the parts to the plant for assembly into specific SUVs. Failure to make deliveries on time can result in work stoppages, which can delay production and possibly result in lost customers.

Tooling is defined as the fixed assets used to produce component (subassembly) parts and, although owned by MBUSI, tooling is located at suppliers (e.g. the stamping dies at Ogihara). Thus, decisions by suppliers impact MBUSI and vice versa. For example, Ogihara cannot stamp M-Class bodies at a second location without obtaining additional dies from MBUSI. For

example, if MBUSI does not believe that investing in additional dies is cost effective because of possible future design changes, Ogihara must keep all of its stamping in one location. MBUSI and its suppliers, therefore, are highly interdependent and must maintain an effective relationship to succeed.

By including suppliers in its developmental process, Mercedes shared its expertise with suppliers and, in turn, was able to create the just-in-time and in-sequence environment without compromising quality. Integrating suppliers into development and production enables the avoidance of costly inspections to incoming subassemblies and allows subassembly deliveries to go straight from the truck to the staging area and then to the assembly line.

Other Core and Resource Management Business Processes⁹

Procurement

Along with assembly, procurement is the other core business process at MBUSI. MBUSI strives to optimize the material requirement planning (MRP) process. MRP is the process by which MBUSI determines the amount and type of parts and components needed for a specified number of vehicles and their related configurations. Depending on the particular vehicle configuration (i.e., left-hand or right-hand drive, etc.), there could be nearly 15,000 variations involved in building an M-Class. For an order of 5,000 vehicles with about 2,500 basic parts, MBUSI's customized software identifies and organizes the requirements in approximately 90 seconds. For an order of 5,000 vehicles and nearly 2,500 requirements for basic parts, it only takes MBUSI's customized software approximately 90 seconds to organize all the requirements for all of the vehicles. Walker believes that MBUSI has one of the fastest MRP turnarounds in the world.

MBUSI uses a vehicle order and the requisite bill of material to establish the parts requirements for each vehicle. Based on packaging and inventory quantities, it releases parts requirements to the supplier, along with shipping/receipt authorization and date and arrival time. Failure of the supplier to meet this requirement could result in a plant shutdown. This just-in-time and in-sequence procurement process results in a number of efficiencies and enhances material tracking capability.

Information Management

IBM's Global Services division helped design and currently oversees MBUSI's enterprise-wide information technology systems to support the plant's business processes. IBM claims that no other major automotive manufacturer constructed a plant with new business processes and personnel as quickly. The initial development phase of MBUSI's IT system began in 1994. In January 1995, a 12-year technology alliance (until 2006) was formed and IBM assumed day-to-day operational support of the plant's IT systems. Through consultation with MBUSI, IBM helped to define the business processes and necessary interfaces to the supply chain for efficient and effective design, development, manufacture, marketing, and distribution of the M-Class. IBM then installed an enterprise requirements planning (ERP) package from BAAN Triton and integrated the BAAN system with its ZoneManager program, which allows companies operating

⁹ Walker gathered the information in this section from prior year's work papers, interviews of MBUSI employees and suppliers, and MBUSI press releases.

in a foreign trade zone to maintain financial, inventory control, and other data about products. IBM completed implementation in March 1997.

According to IBM, the system includes:

- fast order entry processes that can create and validate 1,800 orders per hour
- fast MRP processing that can generate material requirements for 35,000 vehicles in less than one hour, including a customized bill of material for each vehicle
- integration of BAAN Triton software with IBM ZoneManager and the shop floor process control systems.
- on-line, real-time inventory tracking and control system
- EDI capability with U.S. and foreign suppliers to support electronic commerce
- electronic distribution of computer aided design (CAD) data to suppliers
- empowered end-user computing with desktop access to integrated business planning systems and a data warehouse to generate reports.

MBUSI has hardware systems that include 400 personal computers, 50 laptop computers, 100 printers, 30 CAD workstations, and 20 IBM RS/6000 servers. The system also includes a wide area network (WAN) connecting MBUSI's just-in-time and in-sequence suppliers to broadcast delivery requirements and a local area network (LAN) supporting the IT infrastructure contained within the walls of the plant.

Human Resources

MBUSI's vice-president of operations notes that "people are the spine that runs through our organization ...This is a people business, and people build cars." He adds, "nothing is more important than teaching our team members high standards, and it is important for us to reinforce that early on...We are trying to build quality in each and every step of the process." The training process for new team members begins in the MBUSI Visitors Center. Through an interactive, hands-on experience and classroom instruction, team members undergo a four-step training process, including basic and assembly line skills. MBUSI often uses employees who demonstrate a high level of competency to help train new team members.

Initially, over 150 MBUSI team members trained at Daimler-Benz plants in Germany working side by side their German counterparts on the assembly line. This hands-on training provided practical experience and exposure to Mercedes' corporate culture, which the team members brought back to the new plant in Vance. After returning to Alabama, the team members helped train their colleagues as part of a train-the-trainer approach. This philosophy ensures that when a team member learns something, he or she passes it on to other team members, building a pool of knowledge and skills from which the entire organization can draw. MBUSI also assigned German trainers to the Vance plant who served as instructors. In many cases, the German instructors and their families became a part of the local employee's families while overseas for assignments of up to two years.

Quality Management

Given that a primary business objective of MBUSI and DCAG is achieving "Mercedes-Benz" quality, Walker believes that quality management is an important resource management process. Before selling its first vehicle, MBUSI assembled 75 vehicles, subjected them to rigorous quality

testing, and made adjustments throughout the plant until management was satisfied. MBUSI follows industry standardization requirements. The Company requires all of its suppliers to be certified according to ISO 9000 and QS 9000, which are international quality standards for suppliers. Furthermore, MBUSI is ISO 9002 certified, which is an international quality standard for manufacturers.

Facilities

In conjunction with vehicle development and the creation of the new assembly system, MBUSI built a new factory in Vance dedicated to the M-Class. The one-million-square-foot facility on 966 acres includes the plant, a training institute, and a visitor center. The plant configuration is a departure from the typical automotive paradigm because all shops and administrative areas are located under one roof. In fact, the administrative office runs through the heart of the assembly area. In addition, employees and visitors can see the vehicles through windows and glass walls as vehicles move from the Paint Shop to the Assembly Shop. In 1998, an additional \$40 million was spent to add 100,000 square feet to the plant and increase automation in the body, paint, and assembly shops for increases in production planned for 1999. As of November 1998, the plant was valued at approximately \$340 million.

Environmental Management

Following a tradition of environmental consciousness, MBUSI integrated rigorous environmental policies throughout its vehicle development, assembly process, and plant engineering. Part of the Company's mission statement is a commitment to meet or exceed environmental standards. Almost all of MBUSI's product coatings are water-based and cardboard, wood, plastic, steel, and paper are recycled. The Company shreds any crushed car bodies, launders kevlar gloves instead of throwing them away, and recycles paint sludge into cinder blocks or roof tile.

Many environmental management techniques were built into the plant construction early in the process. For example, the fountain in front of the plant serves as a retention tank that cleanses waste and storm water. Another example of the Company's commitment to environmental management is the development of the fuel offloading station. Positioned over a sump, the station ensures that fueling processes do not release hazardous materials into the environment.

MBUSI's environmental commitment not only is in its plant design but also in the M-Class itself. It is one of the few, if not only, certified "low emissions vehicles" (LEVs) in the SUV segment. The vehicle design, for example, recycles gasoline vapors in fuel lines back into the fuel tank.

Information Gathered on Current Operations at MBUSI¹⁰

Production and Sales

To date, every SUV assembled by MBUSI has been pre-sold. There have been no significant work stoppages and there is a 12-month backlog on vehicle orders. Based on the size of the SUV market, which Exhibit 1 shows to be highly competitive, and the price of the M-Class relative to

¹⁰ The information in this section comes from interviews of MBUSI employees and suppliers, MBUSI press releases, prior year's work papers, and *Wall Street Journal* news articles.

competitors such as the Jeep Cherokee, Walker speculates that MBUSI is not likely to gain a major market share. However, the M-Class is well on its way to becoming one of the leaders in quality and customer satisfaction, which are MBUSI's main business objectives. In 1998, with approximately 1,600 employees, MBUSI built 65,000 vehicles. A \$40 million capital investment should enable MBUSI to increase output to 80,000 or more vehicles in 1999 and beyond. In fall 1998, MBUSI began selling its V8 model for under \$45,000. During the first quarter of 1999, MBUSI plans to hire 100 additional employees.

In November 1998, MBUSI announced plans to spend yet another \$40 million for future product enhancements, model variations, and preparation for supplemental M-Class assembly in Graz, Austria. MBUSI announced plans to build M-Class SUVs in Austria to support sales of the M-Class in Europe and to help meet worldwide demand for the M-Class. Producing M-Class SUVs in Europe creates some interesting challenges for MBUSI and its suppliers. For instance, Ogihara must determine the best ways to supply its body stampings to the Austrian plant. Building another supplier location in Europe is not feasible, according to Renschler, because of the tooling expense for such a small number of vehicles (30,000 per year) and because European production could be a temporary solution to the excess demand issue. In the meantime, shipping components across the ocean is not a simple task. For example, components such as the body stampings are subject to corrosion or other damage during shipment. To solve this problem, Ogihara is considering coating its stampings in paint-friendly oil and shipping them in protective packaging. MBUSI is exploring whether the optimal solution for supplying Graz is relying on suppliers to ship directly to Austria or packaging components at a consolidation center in Alabama and shipping them together. Again, this issue highlights the importance of the relationship between MBUSI and its suppliers.

Merger with Chrysler Corporation

With the merger of DBAG and Chrysler Corporation, effective November 17, 1998, MBUSI became a subsidiary of the new company, DCAG. More than 50 percent of DCAG's shareholders are from the United States. The largest three stockholders in DCAG, as of its inception in November, are Deutsche Bank (12 percent), Kuwait (approximately 7 percent), and U.S. billionaire Kirk Kerkorian (less than 5 percent) with remaining DCAG stock held by other institutional and private investors. A likely consequence of the merger is that a wider variety of shareholders will scrutinize MBUSI's operations.

Currently, hourly workers at MBUSI are not unionized. However, the strength of the labor unions in the United States, particularly the United Auto Workers (UAW), which is heavily integrated within Chrysler, makes unionization at MBUSI a distinct possibility. According to the *Oakland Press* of Pontiac, Michigan, DCAG's recent announcement that the UAW will have a seat on the supervisory board of DCAG will make it easier to bring workers at the MBUSI plant under the union umbrella. The effects of unionization could lead to increases in labor and overhead costs, while a strike could lead to a plant shutdown. Currently, MBUSI assembly workers start at \$14.60 per hour and reach \$19.70 per hour after two years (maintenance and skilled workers are paid higher). UAW workers at GM, Ford, and Chrysler start at \$13.65 and reach full wages of \$19.50 after three years. Further, UAW influence could affect the efforts made by MBUSI's management and assembly workers to adopt the SMPs.

With respect to financial reporting, the *Wall Street Journal* reported that DBAG had been able to prevent disclosure of unsuccessful projects in the past by using German accounting rules to their advantage. In the case of DCAG, unsuccessful projects that the company might not have disclosed before the formation of DCAG would likely now be disclosed under U.S. GAAP reporting requirements.

The merger has had an immediate impact on MBUSI. The Austrian plant where European M-Class SUVs will be assembled currently produces the Jeep Grand Cherokee, an M-Class competitor, and the Eurostar minivan. Further, for over a year, DBAG had been in the planning stages for creation of a minivan that would have been assembled in Vance. Chrysler, however, is the world's top maker of minivans so a Mercedes minivan project might be compromised. So far, there has been no formal mention of producing Chrysler products at the MBUSI facility but media reports have speculated that this possibility exists.

The merger also could have an affect on the procurement process. DCAG has decided to use Chrysler's Supplier Cost Reduction Effort (SCORE) for its worldwide procurement and Gary Valade, from Chrysler, will run the operations. The program encourages suppliers to develop innovations, gives more engineering work to them, and rewards them for cutting costs by sharing in the rewards. In essence, this focus on long-term relationships and de-emphasis on competitive bidding appears similar in nature to the relationships that MBUSI currently maintains with key suppliers. However, DCAG's procurement function in the United States could include MBUSI and centralize some of the processes that currently occur in Vance.

Competition and Customer Satisfaction

Competition for MBUSI is increasing. In the summer of 1998, Lexus introduced an SUV, the RX 300. Billed as a competitor to the M-Class, independent reviews have been favorable. However, in a direct, independent comparison between the two models (*Road & Track's Open Road*, Summer 1998) no clear winner was identified. A major difference between the products is that the M-Class is a SUV that rides more like a car, while the RX300 is a car that rides more like a SUV. While the price of Lexus (\$32,950) is just under the M-Class (\$33,950), the excess demand for MBUSI's SUV suggests that there is plenty of room in the marketplace for both vehicles.

BMW introduced the X5, a sport activity vehicle, in January 1999 at the North American International Auto Show in Detroit. BMW will assemble the premium all-wheel drive in South Carolina and will enter the market in late 1999 or early 2000. A major competitor to DCAG, BMW will price its SUV at a much higher price than the M-Class — approximately \$50,000. The X5 will be marketed strictly for performance on the road where the M-Class excels. Several other new SUVs also are scheduled for 1999 or 2000. Acura is introducing a new SUV in 1999 and Nissan's Xterra, built in Smyrna, Tennessee, will go on sale next summer. Mazda will introduce a new SUV in 2000 and Porsche and Volkswagen have agreed to co-develop a SUV to compete with MBUSI.

M-Class vehicles appear to perform well in operation. However, having been in production for only a year, there is no way to measure long-term quality. A search of the complaints database compiled by the Office of Defects Investigation at the National Highway and Traffic Safety Administration (NHTSA) revealed only two complaints were registered regarding the M-Class from the start of production through May 1998.

Overall customer satisfaction for the M-Class appears quite strong. In fact, the automotive marketing firm AutoPacific, Inc. announced in May 1998 that the M-Class ranked first in a survey of overall customer satisfaction for all passenger vehicles sold in the United States. In total, the M-Class has received over 35 independent awards for quality and customer satisfaction during its first year on the market. Some examples of these awards are *Motor Trend's* 1998 "Truck of the Year," *The New York Times's* "Pick of the Year" and the American Automobile Association's (AAA) "Top SUV over \$25,000." Most industry and financial press articles express a high level of satisfaction with the M-Class' performance but a few offer constructive suggestions. For example, a reporter from *Edmund's* suggests that to compete with newcomers, MBUSI should "give the M-class a true 'Mercedes level' of luxury that goes beyond the three-pronged emblem."

Some Important Elements of the Strategic Analyses and Selected Business Process Analyses

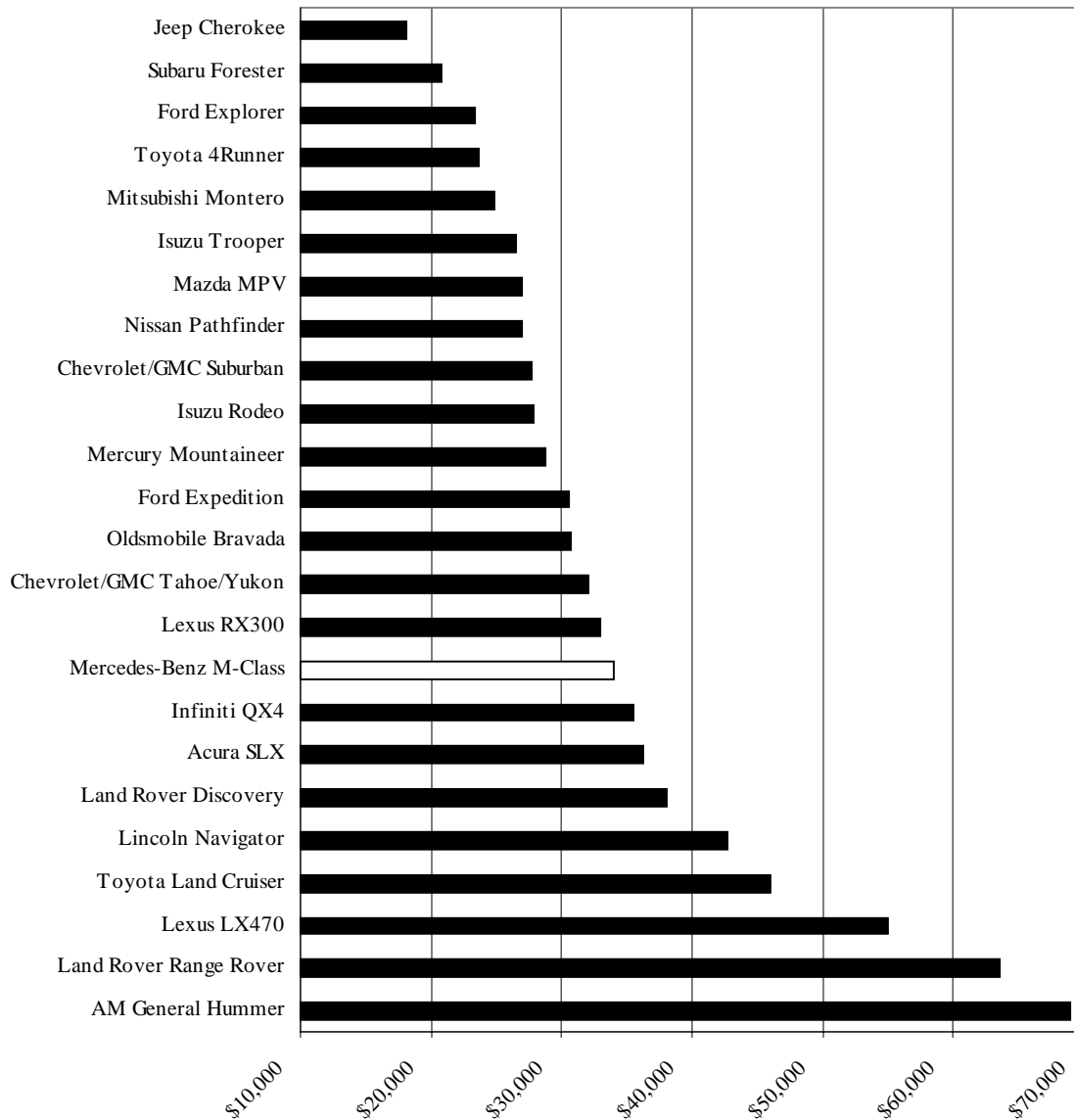
Walker is now ready to construct an entity-level business model, formalize her strategic analysis, and conduct business process analyses for the assembly and supply chain management processes. After helping Walker draft these analyses, the engagement senior and staff should gain sufficient knowledge to begin the remaining process analyses and identify risks and issues that might require further audit scrutiny, the work of an expert, or involvement of more senior engagement team members like Walker and Hutton. The engagement team can perform these analyses when they arrive at MBUSI early in December.

Exhibit 4 contains an entity-level business model template and Exhibit 5 contains a business process template that Walker uses to document certain findings during her analyses. She is comfortable with the knowledge obtained thus far about MBUSI. But she also understands that the client operates in a dynamic environment and that the audit team will need to update, refer to and reflect upon these analyses throughout the audit as they acquire new information and make auditing decisions.

As Walker contemplates the analyses she is performing for the 1998 fiscal year, she feels excited about the opportunity to work on such a fascinating engagement. Although she has yet to put all of the gathered information into appropriate formats for analysis (e.g., business model and process analyses), she believes that MBUSI is a well-controlled company. Even though Walker still has to review financial statements for the current year, based on what she learned thus far some preliminary expectations concerning financial statement account balances have been developed. Also, she feels a significant sense of comfort with respect to the client's ability to execute on a number of important dimensions and wishes that all her clients would take such a seemingly effective, long-term approach to strategic management and process control.

Ironically, as she is about to leave the office that night, her administrative assistant hands her a copy of a commentary from today's *The Birmingham News*. Walker's enthusiasm for working with MBUSI heightens as she reads the article, in which CEO Andreas Renschler provides his perspective on MBUSI's first five years in Alabama. She decides to distribute this article (see Exhibit 6) to all members of the engagement team.

Exhibit 1 SUV Manufacturer's Suggested Retail Price



Source: Edmund's Automobile Buyers' Guide (<http://www.edmunds.com>).

Exhibit 2 Time Line of Milestone Events at MBUSI

1993	January	DBAG board of directors approves the M-Class project.
	April	DBAG announces its intention to build a passenger vehicle plant in the United States.
	September	Vance, Alabama is chosen as the production location for the M-Class.
1994	January	The first German “team members” move to Alabama.
	February	Final M-Class design decision is made.
	May	Groundbreaking ceremony for the new plant and first testing of M-Class prototypes occurs.
	August	Hiring campaign in Alabama begins for production team members: more than 40,000 apply.
	October	Plant construction of begins.
1995	April	Training begins. First production team members from Alabama are trained in Germany at Sindelfingen plant; some remain for more than six months.
	October	Factory workshop opens signaling that the first part of plant operational. Prototypes are hand assembled in plant.
1996	May	The first M-Class production trial vehicles are produced in the plant.
	June	It is announced that the M-Class will be featured in the Steven Spielberg film, “The Lost World.”
	July	Team members occupy the new facility, which has taken 18 months to complete.
	December	Production trials have ended, with 75 vehicles produced, tested, and evaluated.
1997	February	The first M-Class vehicles available for sale roll off the production line and the first official photos are published.
	September	The M-Class is shipped to Mercedes dealers throughout the United States and makes its European debut at the annual Frankfurt Auto Show. The M-Class earns the internationally recognized ISO 9002 certification.
	October	The M-Class wins Motor Trend’s “Truck of the Year.” The M-Class makes its Asian debut at the Tokyo Motor Show. The 10,000th vehicle rolls off of the assembly line.
	December	The plant announces that production will be increased to 80,000 vehicles in 1999.
1998	January	The M-Class wins North American Truck of the Year at the North American International Auto Show in Detroit. The V8 model makes its debut at the same show.
	March	The M-Class goes on sale in Europe.
	May	The plant exceeds capacity of 220 units per day and produces 300 vehicles in one day.
	July	Investment of \$40 million to increase production during summer shutdown is realized.
	September	MBUSI celebrates its five-year anniversary in Alabama.
November	MBUSI’s parent company, DCAG, merges with Chrysler to form DCAG.	

Source: MBUSI press releases and various published press sources.

Exhibit 4 Entity Level Business Model Template

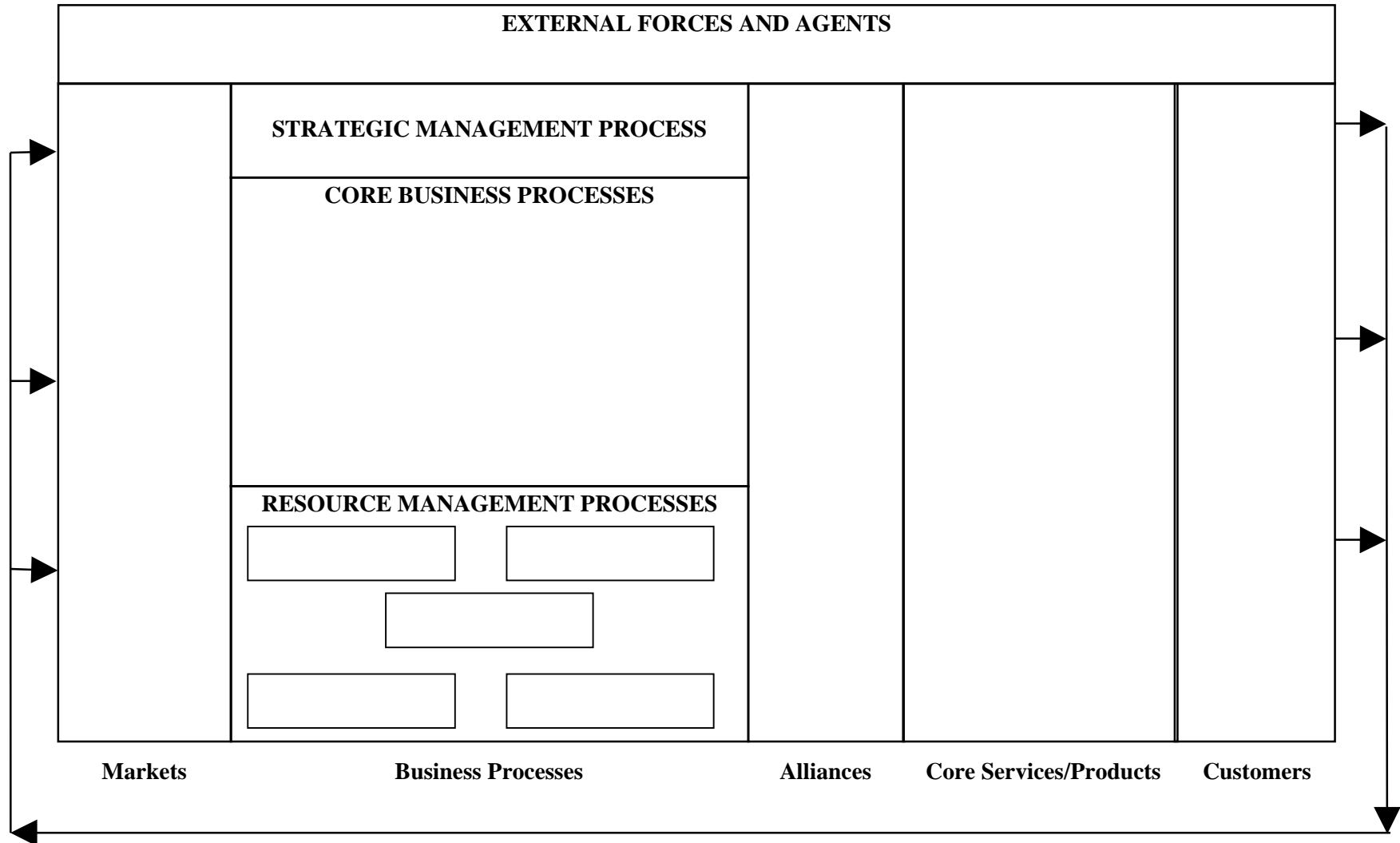


Exhibit 5 Process Analysis Template

BUSINESS PROCESS:

Process Objectives: _____

Inputs: _____

Activities:

--	--	--	--	--	--	--	--

Outputs: _____

Systems: _____

Classes of Transactions	Routine	Nonroutine	Accounting Estimates
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Financial Statement Accounts

CONTROLS OF RISKS WHICH THREATEN OBJECTIVES

Risks Which Threaten Objectives:

Controls Linked to Risks:

KEY PERFORMANCE INDICATORS (KPIs) TO MEASURE CRITICAL SUCCESS FACTORS

Critical Success Factors (CSFs):

KPIs Linked to CSFs:

Other Symptoms of Poor Performance:

Performance Improvement Opportunities:

Exhibit 6

Birmingham News

Five years of Mercedes in Alabama -- What a ride!

by Andreas Renschler, President and CEO of MBUSI

Five years ago, Mercedes-Benz and the state of Alabama began a journey that would take us around the world, to the stars and back. We joined forces and forged a partnership based on trust and respect, and the willingness to challenge ourselves to dream bigger.

There were very high expectations from the beginning from both the state and Mercedes. We were looking for the right kind of infrastructure, motivated work force and good quality of life. The state wanted to develop its automotive base, to reap the economic benefits and earn international recognition.

Exceeded dreams

For every one of our expectations, there were twice as many skeptics that said it could never be done.

Now, only five years later, we have not only proved the skeptics wrong, we have exceeded our wildest dreams--the M-Class set a new standard in the sport utility vehicle segment, and the worldwide demand is so great we've had to increase production twice.

Moreover, as the M-Class has been launched in markets throughout the world, Alabama has received tremendous amount of favorable exposure internationally. Every story written about our company worldwide--whether a driving impression of the M-Class or a story about our unique manufacturing operation--includes positive references to Alabama.

So far, the good news continues. We recently announced an additional \$40 million investment in our plant and 100 more jobs for 1999.

This investment is in addition to the \$40 million expansion we made this year. That investment will enable our plant to increase annual volume by 20 percent from 65,000 units to more than 80,000 units beginning in 1999.

That's more than \$80 million in additional investment in one year. And to support these initiatives, our nine in-state suppliers have collectively invested an additional \$50 million in their facilities.

In 1999, our work force will exceed 1,700, over and above our original forecast of 1,500 by the end of the decade.

Currently, 310 vehicles are coming off the line daily with variations including: a 4-cylinder version exclusive for Europe; left-and right-hand drive V6 versions; and the new V8 M-Class recently launched in North America. The V8 will launch internationally next spring.

What about the future? Will we build another product here? How will the merger of DaimlerChrysler impact our Tuscaloosa operation?

Well, I don't have all the answers yet. What I do know is that our M-Class has proved that Mercedes-Benz quality can be built in Alabama. Our site has a lot of potential for

future growth and if our company decides to build another product in the United States, our site will remain an strong candidate.

When our parent company (formerly Daimler-Benz) recently merged with Chrysler Corp. to create DaimlerChrysler AG, we had a tremendous Day 1 celebration at the plant to herald the first public trading of the new company's stock (DCX) on international markets. DaimlerChrysler is a result of a merger of two healthy, very profitable companies.

DaimlerChrysler is the world's third-largest motor-vehicle manufacturer, and will have a better global position than another carmaker. After the merger news was announced last May, dozens of international and national media came to Tuscaloosa to profile Mercedes-Benz U.S. International. Just as MBUSI has been a learning field for Daimler-Benz for product development, process engineering and corporate culture, it has been characterized as a "microcosm of the merger." And, certainly lessons we have learned can be applied on much larger levels.

As we continue to host international visitors, we work very closely with both the economic development and tourism community to take full advantage of our partnership.

In fact, before the end of this year, we will begin our vehicle factory delivery program. Customers from around the world will come to the plant to pick up their vehicle, and to see how we build quality in every M-class. Similar to the factory delivery program in Germany, customers will have the opportunity to tour the state's attractions and experience the Robert Trent Jones golf course.

A star unto herself

Alabama is truly a star unto herself. Five years ago, she was a shining secret to those in the industry. Today, the automotive world knows how truly special she is. Please allow me to take this opportunity to thank the people of Alabama for supporting us, working with us and making us feel so much at home.

We have come a long way in just five years, and we have exciting things on the road ahead. One thing is for sure, we are destined to share many more successes. We have only merely begun a journey that will forever impact the history of Alabama and Mercedes-Benz. I would say, here's to the next five years, but as the world's oldest automaker (which began in 1886), why not say, here's to the next 112?