

CULTURE AND GENDER IN FORD'S MEXICAN HIGH- PERFORMANCE PLANT

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Mexico and Brazil are the Latin American leaders in the automotive industry. Mexico is a unique model because of its close economic integration with the United States and its free trade agreements with the European Union. It generates about 2 million vehicles annually making it the world's ninth largest automotive producer (Intelamex Inc., 2001). Automotive products are Mexico's largest export, and the automotive sector is Mexico's largest employer. Ford Motor Company began investments in Mexico in the 1920s for assembly of car kits imported from the United States. In the 1980s, production sites in Mexico's northern states, such as Sonora and Chihuahua, became more attractive as integration with the U.S. industry occurred along with geographical decentralization of the industry. Moreover, the introduction of Japanese management practices in some plants fostered horizontal decision making, teamwork, and a reduction in top-down leadership. Previously, the organization of work had followed the Taylor-Fordist model with compartmentalized work, hierarchical decision patterns, and autocratic leadership.

The government of the state of Sonora, which lies just to the south and shares a common border with the U.S. state of Arizona, offered Ford executives an attractive series of financial and physical incentives to locate a new large-scale stamping and assembly plant (HSA) in its capital city of Hermosillo (a 3-hour drive south from the border city of Nogales, Arizona). Other incentives included Hermosillo's well-educated workforce (average schooling of 8 years), its extensive higher education infrastructure, and its proximity to land and sea transportation (at the port of Guayamas, a 11/2-hour drive south from Hermosillo) that could readily bring supplies from Japan and deliver cars to dealers in the United States. Moreover, other factors

included workers' lower wages than in the United States coupled their lack of experience with industrial conflict because the Confederation of Mexican Workers union had close ties to government and a cooperative attitude toward management. It embraced lean production techniques such as rotation, multitasking, work teams, and the elimination of seniority-based and restrictive job classifications.

In 1985, Ford began its experiment in Sonora in partnership with Mazda of Japan to develop a high-tech strategy that became part of a highly integrated international production system with the purpose of achieving the most advanced global standards in auto quality and productivity (Shaiken, 1994). HSA was to be a learning laboratory for Ford's global operations while the partnership with Mazda was the avenue for learning about the lean production manufacturing system. In its formative years, the new plant helped to spur the regional economy that previously had been agriculturally focused. In a highly acclaimed study (Womack, Jones, & Roos, 1991), HSA

had the best assembly-plant quality in the entire volume plant sample, better than that of the best Japanese plants and the best North American transplants . . . also surprisingly efficient, particularly given its modest level of automation. (p. 87)

Originally trained in both Mexico, Japan, and Spain by predominantly Japanese-Mazda experts in lean production to assemble Japanese-designed vehicles, HSA's carefully taught and highly skilled workers geared up at the turn of the century to learn, in-house, to continually improve the Ford Production System (FPS), an adapted lean system, under the direction of highly experienced Mexican managers who trained at Ford—U.S. Furthermore, European-designed vehicles (the Focus) began to be stamped and assembled at HSA. In 2000, auto analysts continued to highly regard HSA in a report: "Hermosillo Puts Together a First Class Performance Package" (Harbour and Associates, 2000). Such accolades are particularly impressive because Ford's overall productivity and quality was falling behind General Motors, DaimlerChrysler, and Toyota. Furthermore, by late 2002, following Ford's painstaking, internal audit of its plants, HSA ranked Number One in Ford Production System (FPS) ratings in Ford's North American plants (Olavarrieta, 2003).

CROSS-CULTURAL COLLABORATION

The creation of the plant's original, innovative organizational culture was a highly complex process that integrated the disparate influences of (a) Japanese managers and technicians and their lean sociotechnical production system incorporating both just-in-time (JIT) and total quality management (TQM), (b) U.S. managers and their traditional Fordist production legacy, and (c) a relatively young Mexican workforce inexperienced in automobile assembly and a unique human resource management system. Cultural innovation is difficult to achieve because managers have

to figure out how to develop and inculcate distinctive sets of ideologies and cultural forms that fit their circumstances (Trice & Beyer, 1993). The mutual adaptation process of U.S. and Japanese managers and their production ideologies occurred simultaneously with in-depth socialization and skill building of the Mexican workforce. The confluence of these three factors resulted in a unique Ford-Mazda Mexican hybrid organizational culture and production system that has proven itself over time to be able to adapt to and deliver new auto designs while maintaining a high level of product quality.

One way in which the multinational alliance created the innovative, hybrid culture was to use cultural mediators who helped various parties learn and adapt. For example, a Cuban national who had worked for Ford-Detroit helped to instill modern business attitudes in Mexican workers. In an interview in Hermosillo, Mr. Fernandez, now retired, told a member of our study team: "My job was to help American and Japanese managers communicate and understand one another; I had to learn the JIT system first, then I had to try to teach this system to others who would really be using it." Mr. Fernandez cofacilitated cross-cultural management teams to establish plant guidelines. He would explain the point of view of Mexican workers to the Americans and Japanese as well as educate Mexican workers about U.S. and Japanese work habits. He felt that he was a cultural liaison because he explained cultural practices of each group to the other.

Plant workers have reported to our research team that they receive offers from other Mexican companies who know that HSA employees are highly productive and well rounded: many HSA employees eventually work for local companies as managers or trainers because they learned to cut costs, manage groups, and work efficiently, all of which are a big asset to developing a company that has little experience with a modern management system.

Mexicans, whose traditional managerial style is predominantly authoritarian and paternalistic, quickly adapted to the managerial values and systems of the multinational corporate hybrid culture. To work effectively with the lean production system, Mexican workers were able to draw on one work-related factor specific to their culture—cooperation, but at the same time, they had to adapt to another work-related cultural factor: power distance and its dimensions of control and authority. Power distance measures the extent to which less-powerful members of an organization accept the unequal distribution of power (Hofstede, 2001). In Mexico, power distance was found to be greater than in Japan and the United States. (United States has the least power distance). Mexican workers have great respect for authority; their upbringing has instilled in them an acceptance of parental absolute authority, and as a result, young executives do not question decisions of superiors (Kras, 1995). The much-heralded Japanese team-based lean system has inherent low power distance and is nonhierarchical. In a team situation, workers have to be in control of operations and are responsible for following through and resolving problems (through continuous improvement discussions) to achieve high-quality

products. Mexicans traditionally do their jobs and wait to see results; they are unaccustomed to checking on their work because they feel that supervisors do not trust them if quality checks on performance are introduced (Kras, 1995).

Japanese lean system hybrids, such as HSA, concentrate their philosophy and practices on human moral values and collective behavior: trustworthiness, personal integrity, responsibility, initiative, personal development, loyalty, and honesty. Collective values and behaviors such as shared goals, mutual respect, interdependence and cooperation, group recognition, open communication, and perceived egalitarianism are key to building the culture of the lean system organization. Such values and behaviors represent a significant departure from those of the traditional Fordist system that is more individualistic, hierarchical, and centralized. These collectivist values are more similar to the orientation of Mexican workers than to individualistic-oriented Anglo-American (U.S.) workers who tend to complete with one another.

In order to institutionalize the high-performance manufacturing system, profitability, and ultimately customer satisfaction, continuous training enables HSA workers to be socialized into behavioral norms that ensure compliance with high quality standards: HSA workers take 8 weeks of thorough training following an intensive selection process and before starting work; only those with the highest motivation are selected to become vehicle-team members.

Team-based problem solving is integral to the Japanese lean system: workers are in control of operations and basically self-manage; they are responsible for resolving problems to achieve continuously evolving higher quality and productivity levels; they are multiskilled and rotate jobs (Phil & MacDuffie, 1999). Such lean system work processes are congruent with cultures that respect horizontal power relationships. Even though Mexican workers are known for their cooperative behavior, and, increasingly, corporate managers are learning to adopt nontraditional styles, the traditional Mexican managerial model does persist in which the boss retains a high degree of control and workers demonstrate deference to authority (Mosley, Valentine, & Godkin, 2002).

Because teams began to grow larger than originally formed in the early years, in 2000 HSA senior managers, who by now were all Mexican, placed renewed emphasis on fostering team-driven processes as a central underlying premise of corporate culture. Trusting the technician to develop competence to make the right decision was paramount. As Olavarrieta (2003) put it: "The human part of the business is key to our success." Job-related decisions had to be made at the lowest possible level, and at HSA, where there is only one job classification of production worker, this meant workers on the production line (the technicians). "Employee empowerment" was the phrase used by managers to describe this core principle. Moreover, as part of this core value, people's differences had to be respected—among employees, clients, support personnel, and the community—according to a senior human resources manager.

WORKFORCE DIVERSITY INITIATIVE AND GENDER DYNAMICS

In Mexico, women hold proportionally more managerial positions than in Japan (8%), but fewer than in the United States (44%). Women now make up about 22% of all managerial positions in Mexico, double the number from 10 years ago. Despite this trend, HSA only recently invited a woman to join its executive management level, but she has no line authority. She holds a black belt in the Six Sigma Quality program and by virtue of this status, she must belong to the executive level. Overall, women comprise about 10% of the administrative support category at HSA.

Workforce diversity programs in Mexico have been virtually unknown. Only recently, a few U.S.-based multinationals began to develop such programs in order to hire more women (Zabludovsky, 2001) or to train the workforce to accommodate and respect diverse people's behaviors. The lack of attention to factors such as culture and ethnicity in Mexican corporate programs may reflect the fact that almost all Mexicans are mestizo or people of mixed heritage. At HSA, the human resource manager explained that a new workforce diversity initiative came about for two reasons: "It is the right thing to do and it makes good business sense." There are two parts: (a) a training program for employees about appropriate skills and behavioral practices for a diverse workforce, and (b) a corporate policy on job quotas, set by the plant's operating committee (the executives) that targets 50% of new hires (technicians) to be women. Part of management's reasons for hiring women, as explained to me, is a belief that women assess quality differently and more effectively than men, and that such traits would be advantageous on the production line. Managers believe that women are more detail oriented than men, a characteristic much needed in production.

Plant personnel placed ads in local newspapers in an effort to recruit young women. A plant manager showed me an ad from the Hermosillo daily newspaper, *El Imparcial*, that read: "Planta De Estampado Y Ensambel De Hermosillo solicita PERSONAL FEMENINO para laborar en área de procuccion." Such gender-specific classifieds are not uncommon in Mexico. In the first half of 2001, the plant hired 16 women as technicians and, because one of them became pregnant, the production line technicians, for the first time, dealt with issues such as maternity leave and return-to-work procedures. HSA jobs are highly sought after, and it is not uncommon for 1,000 people to apply for 25 job openings.

The subject of workforce of workforce diversity is not easily talked about in Mexico; sexual orientation, for example, is a touchy subject. Therefore, diversity training focuses on valuing differences, customer diversity, diverse points of view, as well as consciously working with and valuing women and older people. Results of pre- and postfocus groups with technicians on work teams where women became participants indicated that employees needed to eliminate inappropriate jokes and demeaning language and to open up to those who differed from themselves. Moreover, language patterns had changed, and men needed to make more supportive statements to women.

Diversity training modules included both the plant's antiharassment training policy and procedures, and confidentiality and "zero-tolerance" rules. Ford-Michigan prepared diversity training material for use worldwide; at HSA, human resource personnel made adaptations to fit the local Sonoran environment. A senior manager, who holds the most significant production rank of all women employees and who was one of the first women engineers at HSA, explained to us that Mexican culture is chauvinistic but she thinks that it is changing now. She strongly believes that HSA "broke the paradigm" in the area by hiring women technicians and engineers. She believes that women have the competence to be part of the senior executive ranks at HSA.

CONCLUSION

In early 2002, HSA released 600 employees due to the shutdown of its Japanese-designed Escort model line. Such action is frowned on in Latin American countries, where strong bonds are forged between managers and employees and where safety nets are minimal. Firing a worker has enormous economic and social consequences in Latin America (Rohter, 2002). Given HSA's stellar performance data and its recent start-up of an on-site Lean Learning Academy for all of Ford's Latin American operations, it is highly unlikely that Ford's corporate executives would target HSA for closure. In fact, in 2003, there are rumors circulating in Hermosillo that because HSA is such a showcase plant that it will host the start-up of a new model vehicle for Ford.

The workforce diversity initiative at HSA was observed to be at the forefront of Mexican industry efforts to diversify employees; its diversity-training program is a new phenomenon in Mexican industry. HSA continues to be innovative with its ambitious human resources department managers. Changes in plant policy to adopt female hiring quotas illustrate that HSA is providing leadership—the fact that at least one woman was just made a member of the executive team is another example. When firm downsizing occurs, however, it is not unusual for the last people hired to be the first to go. Thus women are vulnerable because they encounter organizational culture resistance and because their jobs may be jeopardized if layoffs occur.

The departure of Japanese-trained personnel steeped in the lean production system, coupled with the replacement of Japanese-designed vehicles with European-designed vehicles, created intense challenges in the organization of work and proved the ability of the HSA sociotechnical system to adapt and continue with a very high performance work culture. Given that Mexican managers traditionally emphasized power over their subordinates, it is even more remarkable that the Mexican senior management team at HSA achieved such high FPS performance levels. HSA holds the distinction of being a model Ford plant at the beginning of Ford's second century.

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