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**Article**

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## TOTAL QUALITY MANAGEMENT AND BUSINESS EXCELLENCE: THE BEST PRACTICES AT TOYOTA MOTOR CORPORATION

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### **Abstract**

Today's rough competition at a global level in all spheres of activity imposes companies worldwide to make sustained efforts in order to improve their products, services and processes. The automotive industry has always provided valuable examples of companies that achieved business excellence by putting quality at the core of their production system such as Toyota Motor Corporation. It has continuously designed, implemented and developed the Toyota Production System that influenced the emergence of the business excellence models. The paper aims to highlight the relationship between the concepts of total quality management and business excellence, and to identify and analyze the best practices related to them at Toyota Motor Corporation, a leader of automotive industry. The information obtained through the direct and personal observation method and from multiple secondary sources of data was collected, processed and analyzed in order to achieve the objectives of the paper. The main results show that the best practices of Toyota Motor Corporation related to total quality management and business excellence derive from the Toyota Production System and these practices are to be found in the attributes of business excellence.

**Keywords:** total quality management, business excellence, best practices, Toyota Production System, Toyota Motor Corporation

**JEL Classification:** M1, M19

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## Introduction

Economic globalization has made organizational performance essential to the existence and prosperity of any business in an increasingly turbulent and hostile environment. Today's global fierce competition requires all types of business organizations to continuously improve their products, services and processes. As companies want profitable and organic growth (KPMG, 2016) they seek to identify, transfer and implement best practices in order to obtain a superior performance. By putting in place systems for sharing best practices companies spread the relevant improvements from one area to another area (Keller and Price, 2011). On the other hand, the exponential rise in the number of researches related to best practices has shown an increased interest in benchmarking (Davies and Kochhar, 2002) and business excellence (BE).

Achieving BE represents a significant endeavor for all companies around the world. This is why striving for excellence has become a top priority for them. Actually, the excellent companies are brilliant on the basics, work hard to keep things simple, insist on top quality and treat well both their customers and employees (Peters and Waterman, 1982). In other words, excellent companies are doing their best by optimizing the use and effectiveness of all their resources (European Foundation for Quality Management, 2016). The excellence approaches trace their roots to total quality management (TQM) (Oakland, Porter and Tanner, 2004) as it has a positive impact on the performances of a company (Opara, 1996; Ahire, Golhar and Waller, 1996; Arawati and Za'faran, 2000).

Since its advent, the automotive industry has always offered valuable examples of corporations that achieved BE by putting quality at the core of their production system such as Toyota Motor Corporation (TMC) (Stewart și Raman, 2008). It has continuously designed, implemented and developed the Toyota Production System (TPS), a Japanese system that inspired through its practices the business excellence models (Dahlgaard-Park and Dahlgaard, 2007).

Starting from the above discussion, the paper aims the following two objectives:

- To highlight the relationship between the concepts of TQM and BE.
- To identify and analyze the best practices related to TQM and BE at TMC.

In this respect, the information obtained through the direct and personal observation method (visits at Toyota plants) and from multiple secondary sources of data (books, journals, corporate reports etc.) was collected, processed, and analyzed.

In the first part of the paper the literature review about the concepts of best practices, TQM, BE and the relationships between them is briefly presented. The second part of the paper refers to TPS from a historical perspective, emphasizing its key characteristics that led to its emergence. Some of the best practices of TMC related to TQM and BE are presented and analyzed in the last part of the paper. Paper ends with conclusions.

## 1. Literature review

A vast body of literature in the areas of management, business and manufacturing stresses the importance of best practices in every field of activity (Szulanski, 1996; Davies and Kochhar, 2002). Bhutta and Huq (1999) consider them as the highest standards of

excellence for products, services and processes. Therefore, these practices have been associated with excellence in both industry and services, and the analysis of their connection has become a relevant topic of study (Quesada-Pineda and Gazo, 2007). Voss et al. (1997) were among the first researchers to statistically test the validity of the correlation between best practices and business performance. The organizational performance encompasses business performance and comprises the financial performance (e.g., profit), the product market performance (e.g., sales) and the shareholder return (e.g., economic value added) (Richard et al., 2009). Morita and Flynn (1997) also demonstrated the positive relationship between the implementation of these practices and corporate performance. Consequently, best practices could be defined as practices used by top companies that have a significant favorable effect on their performance (Laugen et al., 2005).

Higher performance helps companies to attain BE. Excellence represents the essence of managerial thinking and quality is one of its key elements (Landier, 1991). Many Western big companies began to understand in the 1980s that quality became an important strategic differentiator and not just a buzzword. It followed a period of scientific effervescence that led to the emergence of both new concepts such as TQM and new quality standards such as ISO 9000. All of them, but especially TQM, set the BE framework.

TQM constitutes “an approach that focuses on improving the organization’s effectiveness, efficiency and responsiveness to customers’ and other stakeholders’ needs by actively harnessing people’s skills and competencies in the pursuit of achieving sustained improvements to organizational performance” (Porter and Tanner, 2004, p. 4). In other words, TQM is “a management approach that aims to succeed in fostering the stable growth of an organization by involving all of its members in economically producing the quality that its customers want” (Kume, 1996, p. 2). TQM implies the application of quality management principles to all aspects of a company (e.g., products, services, customers, suppliers etc.) and their integration within the business processes (Dale, 2003). Thus, the achievement of business organizational excellence is at the core of TQM as the latter represents a multidimensional concept that includes numerous elements, such as (Olaru, 1995; Umeda, 1996): primary focus on quality, internal and external customers’ satisfaction, continuous improvement, systemic vision, robust design, shared responsibility, quality control, teamwork (Juran, 1989), statistical thinking, supplier integration, education and training, cultural change, strategic processes etc.

Since the publication of the influential book *In Search of Excellence- Lessons from America’s Best-Run Companies*, there have been many attempts for defining business excellence. The book provides the McKinsey’s 7-S model that comprises two success criteria for excellence (Peters and Waterman, 1982): hardware (structure, strategy) and software (systems, shared values, skills, staff, style). As Peters and Waterman (1982) pointed out, eight attributes characterize the excellent, innovative companies as follows:

- a bias for action;
- close to the customer;
- autonomy and entrepreneurship;
- productivity through people;
- hands-on, value driven;

- stick to the knitting;
- simple form, lean staff;
- simultaneous loose-tight properties.

Later, Peters and Austin (1985) stated that the following four critical success factors led to excellence: people, care of customers, constant innovation, and leadership. Afterwards, Porter and Tanner (2004) expanded their researches and identified nine fundamental themes of BE: leadership; customer focus; strategic alignment; organizational learning, innovation and improvement; people focus; partnership development; fact-based processes management; results focus; social responsibility. The aforesaid presentation shows that TQM and BE designates two multidimensional concepts based on several common elements (e.g., customer focus, improvement) but are not identical.

Several business excellence models have emerged since the end of 1980s as a result of the rapid development of the quality movement. In the beginning, there were quality awards models or TQM models, but the terms “quality” and “TQM” were gradually replaced by the term “business excellence”. However, some authors challenged the replacement of the above mentioned terms with the term “excellence” (Dale et al., 2000) arguing that there was “little or no difference between quality management and excellence” (Dale, 2003, p. 477). In essence, the business excellence models were designed to help organizations to focus their efforts in a more systematic and structured way in order to obtain a superior performance.

Launched in 1987 in the United States of America (USA), the Malcolm Baldrige Model consists of seven main categories: leadership; strategic planning; customer focus; measurement, analysis, and knowledge management; workforce focus; processes management and business results (NIST, 2015). Each category of the American model represents a sum of specific elements (e.g., leadership comprises vision, mission and values, communication, performance evaluation, ethical behavior etc.). This model has been successfully adopted in several countries of the world such as Singapore, Australia and Japan. In 1984 the Quality Award was established in Singapore which is granted annually starting from the following seven criteria of the BE framework: leadership, customers, strategy, people, processes, knowledge, results (SPRING, 2015). Leading with vision and integrity, creating value for customers, developing organizational capability, valuing people and partners, driving innovation and productivity, managing with agility, and anticipating the future are among the attributes of excellence according to the Singapore model. Similarly, the Australian Business Excellence Framework encompasses seven categories: leadership; customers and stakeholders; strategy and planning; people; information and knowledge; process management, improvement and innovation; results and sustainable performance (SAI Global, 2016). In its current form, the Japan Quality Award Framework targets the following eight criteria: leadership and social responsibility; strategic planning; information management; human resource; customer and market insight; value creation process; results; review and learning process (JQAC, 2016).

On its turn, the European Foundation for Quality Management (EFQM) proposed in 2012 its own EFQM Excellence Model based on five enablers (leadership; people; strategy; partnerships & resources; processes, products and services) and four results (people results, customer results, society results, business results). It also identified the following eight fundamental concepts of excellence (EFQM, 2012): adding value for customers, creating a

sustainable future, developing organizational capability, harnessing creativity & innovation, leading with vision, inspiration & integrity, managing with agility, succeeding through the talent of people and sustaining outstanding results. The existing BE models worldwide share therefore a common business philosophy that emphasizes, among others, leadership, customer focus, and workforce focus.

## **2. The Toyota Production System: A historical perspective**

The history of the iconic Japanese company started at the end of the nineteenth century. In that period, the Toyoda family lived in a small community that produced and sold textiles. In 1894, Sakichi Toyoda (1867-1930), a self-made man, opened Toyoda Loom Works, a small business (TMC, 2016a). He began to invent, build and sell wooden spinning machines. Later, Sakichi succeeded in constructing a power loom by using an old and out of order steam engine. His early manufacturing approach was based on several main elements that evolved into the pillars of the future TPS such as *genchi genbutsu* (going to the source in order to solve problems and improve processes), *jidoka* (autonomation/automation with a human touch), and *monozukuri* (the spirit of manufacturing). In fact, the advent and the implementation of TPS are strongly linked with the history of TMC.

Sakichi always tried to improve the performance of his looms. This is why he decided to visit the European Western countries where he studied the British machineries produced by Platt Brothers & Co. and acquired new technical and business knowledge. Sakichi was very impressed by Samuel Smiles' motivational book *Self-Help* that promoted the virtues of self-improvement: „It is the energy of individual life and example acting throughout society, which constitutes the best practical education” (Smiles, 1863, p. 12). There was no surprise when he created one of the best automatic looms in the world in 1924. Two years later emerged Toyoda Automatic Loom Works, the parent firm of the Toyota Group. In 1929, his son Kiichiro (1894-1952) sold to Platt Brothers & Co. the patent rights to manufacture and distribute the automatic loom invented by Sakichi for £ 100,000. The sum allowed Kiichiro to finance his dream: the design and fabrication of a Japanese automobile. Under the favorable auspices of the new Japanese automotive manufacturing law from 1930 he began designing the Model AA by using Ford and GM components (Cusumano, 1985) and purchasing precision machine tools for the manufacturing process. In this way, Kiichiro pursued one of his father's ideals by contributing to the betterment of society through creative enterprise (Magee, 2008).

In 1933, the board of directors of Toyoda Automatic Loom Works, Ltd (former Toyoda Loom Works) approved the plan for manufacturing automobiles. Kiichiro hired a group of experienced engineers such as T. Kan who once participated in a pioneering automobile manufacturing project (Wada, 1995) and nominated S. Kamiya to begin Toyota's sales and marketing operations. Also, he sent R. Oshima to Europe to buy equipments and machinery for automobiles, and S. Takatoshi to the USA to study the manufacturing of the automotive components. A Toyota delegation visited the Focke-Wulff Plant in Germany and observed the 'Produktionstakt' concept, which later developed into *takt time* (the time required to get a product unit) (Holweg, 2007). In 1935, Kiichiro and his team created a prototype passenger car. One year later, they launched the first automobile, the Model AA Sedan, a combination between the body shape of a Chrysler and the engine of a Chevrolet. Also,

Kan designed the plan for Koromo Plant, a new factory which began operations in 1938 with a monthly capacity of 2,000 cars. The Koromo Plant portrayed in Japan the mixture between the American manufacture methods and Kiichiro's ideas that determined the appearance of one of the pillars of TPS, called later *just-in-time* (JIT- to produce and deliver the right items at the right time in the right amounts). The year 1937 brought the birth of Toyota Motor Company, Ltd. This pre-war period brought to the fore the elements that will shape the future TPS, respectively: keeping *monozukuri* alive, *kaizen* (continuous improvement), *genchi genbutsu*, *jidoka*, focus on human resources, stimulating creativity and innovation, introduction of advanced production methods and techniques, lifelong learning, acquisition and use of new technologies.

The Second World War disrupted production and the post-war economic conditions favored the appearance of financial difficulties at Toyota. However, Toyota Motor Company launched in 1947 the Model SA (Toyopet), a low-priced and affordable automobile for the Japanese. In 1950 because of the disputes between management and work force Kiichiro resigned and the company was split in Toyota Motor Manufacturing and Toyota Motor Sales divisions. Eiji Toyoda (1913-2013), the new managing director, traveled to the USA to study the American manufacturing methods in the automotive industry. After visiting the Rouge Plant of Ford, he thought to adopt the mass production philosophy at Toyota but the lack of capital and the relatively small size of the Japanese market made him to change his mind. Thus, Eiji chose to 'learn by doing' through the adaptation of the imported technology to a significant smaller market demand (Tolliday and Zeitlin, 1986). Starting with 1954 he decided to implement the flow production (*pull system*) throughout the manufacturing process according to the so-called 'supermarket model', in which parts were supplied from a preceding operation to a subsequent operation. Eiji was assisted by one of his best engineers, T. Ohno, the true architect of TPS and one of the ardent advocates of JIT at Toyota. Under the guidance of Ohno the company concentrated its efforts towards the reduction of *muda* (waste), a key element of TPS. Also, the production line was rearranged with the support of Noritsu Kyokai (The Association of Efficiency), and TPS gained consistency and came fully into operation (Gronning, 1997).

The 1950s coincided with a period when two American quality gurus, W. E. Deming and J. M. Juran, were invited by the Union of Japanese Scientists and Engineers to train the Japanese corporate executives in quality control. Among the main subjects debated, Deming taught the Japanese how to use the plan-do-check-act cycle (PDCA/Deming cycle) to improve quality. On his turn, Juran explained top and middle-level managers the roles they played in promoting quality control activities. In time, a favorable atmosphere to quality emerged in the Japanese companies, including at Toyota through TPS. There were six characteristics that distinguished the Japanese approach to quality control from that of the Western countries as follows (Ishikawa, 1985): company-wide quality control; education and training in quality control; quality control circles activities; quality control audits; use of statistical methods, and promotion of quality control at national level.

Starting from his famous motto "Customer first, dealer second, manufacturer third", that has remained one of the guiding principles of the corporation, Kamiya created new channels of distribution for different Toyota models as he fully understood the necessity of building strong relationships with dealers and customers. However, Toyota's attempt to penetrate the American automobile market in the late 1950s with the Toyopet Crown model proved to be a failure and a painful lesson for Toyota leaders (Burton, 2015), but they did

not give up. Instead they learned from mistakes and decided not to design and sell cars in an unknown market anymore. The late 1960s and the beginning of 1970s witnessed the success of the Corona model, a car special designed for the American customers. During the 1970s, Toyota Motor Company attained its maturity when the first oil crisis began. In 1982, Toyota Motor Company and Toyota Motor Sales Company merged into Toyota Motor Corporation (TMC), which turned into a global player in the automotive industry. TMC became the largest automobile manufacturer in the world for the first time in 2008 (LeBeau, 2009) and retained the first place in 2015 (Table no. 1).

**Table no. 1: The five world’s largest automotive manufacturers by sales in 2015**

| No. | Corporation    | Sales (million cars sold) |
|-----|----------------|---------------------------|
| 1.  | Toyota         | 10.15                     |
| 2.  | Volkswagen     | 9.93                      |
| 3.  | General Motors | 9.80                      |
| 4.  | Renault-Nissan | 8.22                      |
| 5.  | Ford Motor     | 6.64                      |
| 6.  | Hyundai Motor  | 4.96                      |
| 7.  | Fiat-Chrysler  | 4.61                      |

*Source: McGrath, 2016*

The postwar period brought to the fore new elements of TPS such as the fight against *muda*, emphasis on quality and the use of specific techniques (e.g., PDCA cycle, statistical quality control methods, quality circles), learning by doing, the implementation of the pull system, focus on streamlining production, JIT, and, especially, the full confirmation of the system alongside its putting into operation.

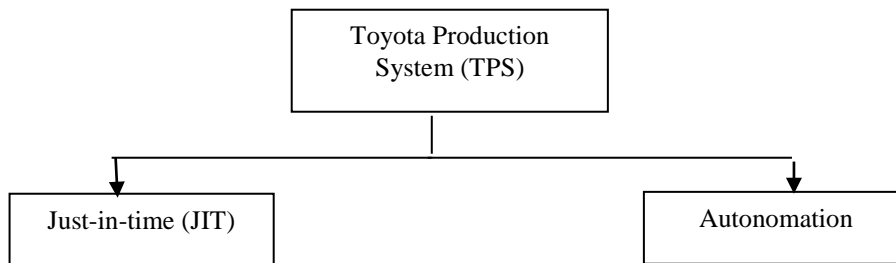
In sum, two principal stages can be distinguished in the historical evolution of TPS. The pre-war stage is the one that bears the decisive imprint of the founder, Sakichi Toyoda, and the one in which appear the germs of the production system. The postwar stage marks the consecration of TPS together with the design, implementation and continuous improvement of the system.

**3. Best practices related to total quality management and business excellence at Toyota Motor Corporation**

The performances recorded by the Japanese corporation in the automotive industry certifies that TMC has attained BE. The primary source of Toyota’s excellence consists in its TPS, and the roots of the system are to be found in the five Toyoda Precepts that encapsulate Sakichi’s life and thinking (TMC, 2016b). The first precept stresses that the mission of TMC in society is to contribute to its development and welfare according to the idea of “benefiting the country” (Sato, 2008). The second precept urges to relentless action in order to improve and invent. The third precept expresses the features of the people of Mikawa region (the home of TMC’s headquarters): loyalty, integrity, simplicity (Sato, 2008). The fourth precept asserts that employees are part of Toyota’s family and, therefore, the internal environment of the corporation should be very pleasant for them. The last precept calls for a reconciliation between business and morality.



The absolute elimination of *muda* represents the foundation of the TPS (Ohno, 1988) as waste is “any human activity that absorbs resource but creates no value” (Basu and Wright, 2004, p. 70). In order to eliminate all types of waste TMC aims to provide the highest quality at the lowest cost and shortest lead time (Magee, 2008). The two pillars of the TPS are JIT and autonomation (Figure no. 1). In a flow process, JIT means that “the right parts needed in assembly reach the assembly line at the time they are needed and only in the amount needed” (Ohno, 1988, p. 4). Although it seems a simple idea, its implementation in the production process was difficult because it imposed the elimination of all inventories (Womack, Jones and Roos, 1991). Autonomation signifies that machines can prevent errors (e.g., defective products) autonomously.



**Figure no. 1: The two pillars of TPS**

The TPS framework encompasses technology (equipments, machineries) and meta-technology (know-how, techniques, methods) (Itami et al., 1988), that are found in the two interconnected sides of TMC (Osono et al., 2008), respectively the soft side (e.g., human resource management, dealer management, corporate culture etc.) and the hard side (e.g., logistics management, research and development etc.). TPS is based on the consistency of Toyota’s business philosophy that emphasizes the distinctive importance given to quality, a nodal point of the system that led to the implementation of TQM at TMC. Quality is present both in the visible and invisible part of TPS. The visible part contains practices (e.g., quality circles), instruments (e.g., statistical quality control) and principles (e.g., ‘zero defects’ principle), and the invisible part refers to management thinking and *kata* (routines) (Rother, 2010). These two parts interlock and complement each other in a whole called TPS, a complex system that incorporates multiple connected elements (e.g., lifelong learning and continuous improvement). On its turn, TPS has conducted to the attainment of BE by TMC (Figure no. 2). This is why TPS represents “the most visible product of Toyota’s quest for excellence” (Liker, 2004, p. 15), and quality an ongoing corporate preoccupation.

The research has revealed some of the best practices of TMC related to TQM and BE as follows:

- **Customer focus.** The concern for customer is expressed at Toyota by putting into practice the principle ‘customer first’ through the feed-back obtained from him. The Japanese corporation has thereby established customer assistance centers worldwide in order to carefully listen the ‘voice of customer’ and to answer his expectations. Moreover, in order to ‘capture’ the customers and to build long term relationships with them, TMC understands the need to better know, serve, teach them, and to empathize with them by

means of transposing their feed-back in producing improved automobiles (Magee, 2008). For example, Toyota has adapted its models Voxy și Noah for persons with disabilities (TMC, 2014). The customer is the real judge of Toyota cars from the market, the one who appreciates if they do have value or not (Liker, 2004), and, in this regard, the Camry model at midsized cars class and the Sienna model at minivan class have been considered the best cars by consumers in 2016 (Consumer Reports, 2016).

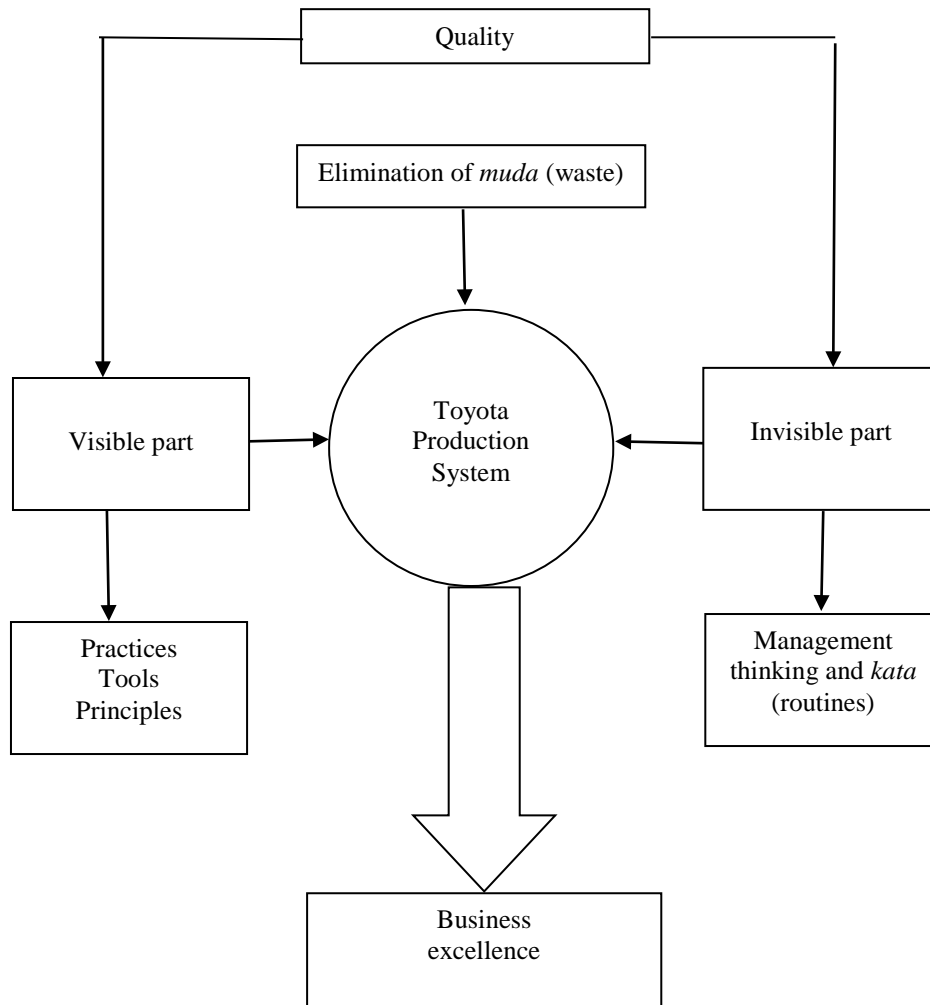


Figure no. 2: From quality to business excellence at TMC

- **Strong leadership.** Achieving BE by TMC is also the natural result of the significant contribution of its leaders during the time, especially regarding TQM. The former president of TMC, K. Watanabe, stressed that Toyota’s products and services must be the best in the world and, being number one in the automotive industry at a global level means being

number one in terms of quality (Stewart and Raman, 2008). Thus, he asserted that by continuously improving the quality, the revenues of the corporation will rise. Most of the presidents and managers of Toyota were and still are visionary leaders who have set and realized ambitious *hoshin* (goals) (Sato, 2008), maintained the unity of purpose without forgetting the historical perspective, represented mentors (Rother, 2010) and outstanding examples for the employees, and contributed to the development of the organizational culture (Liker, 2004; Liker and Hoseus, 2008). They have also believed in the power of humility and showed a lot of respect for their subordinates, gaining their confidence by applying *nemawashi* (a process based on consensus for discussing problems and identifying potential solutions together with all affected people). The Toyota leaders assumed their responsibility for errors committed when they decided to recall in service million cars with problems (Isidore, 2016) and apologized in public towards their customers (Maynard, 2010). TMC essentially appreciates its leaders' effectiveness according to their performances in the following four domains: safety, quality, productivity, and costs (Liker and Meier, 2006).

• **Continuous improvement (*kaizen*).** As one of the components of TPS, *kaizen* assumes that everyone- both managers and workers- has to be involved in making constant and small improvement efforts at his work place (Imai, 1986). There are various *kaizen* strategies such as those based on the PDCA cycle, the standardize-do-check-act (SDCA) cycle or the quality, cost and delivery (QCD) cycle, but all of them target a common goal: the total elimination of *muda*, the foundation of TPS (Liker, 2004). The fulfillment of this objective requires the completion of two stages. All types of *muda* are identified in the first stage, respectively (Ohno, 1988): waste of overproduction, waste of time on hand (waiting), waste in transportation, waste of processing itself, waste of stock on hand (inventory), waste of movement, waste of making defective products. This stage is followed by the complete elimination of all identified types of *muda*. To this end, the employees apply a specific technique called the 'five whys' to gradually discover the real cause of a problem and remove it (Liker, 2004). After each answer to the question „why?“ follows a new question „why?“ (e.g., Why is there an oil slick near the machine? Because it is losing oil. Why does it lose oil? Because the oil pump broke down. Why does it break down? etc.). TMC also uses a system whereby a labeled card is returned to the previous work place/activity to indicate which parts are required for *Kanban hoshiki* (the next/subsequent work place/activity), avoiding thus the waste of inventory (Shingo, 1989). So, continuous improvement at Toyota is based on process and results, systematic thinking and non-blaming (Magee, 2008).

• **Workforce focus.** The Toyota DNA constitutes a mixture between TPS and its human system (Liker și Hoseus, 2008). TPS can not be successfully implemented in the absence of valuable people and, therefore, TMC should be a real family for each employee according to Toyoda precepts. Kiichiro often stated that employees are “a company's treasure” (Sato, 2008). By applying the principle *mono zukuri wa hito zukuri* (“making things is about making people”), Toyota employees were carefully selected, trained and rewarded to become the best at they do (Liker and Meier, 2007). In turn, they must show *nintai* (patience) and *shimbo* (perseverance) at their work place to develop professionally. A good example is given by the quality circles which consist of small groups of employees who voluntarily meet multiple activities aimed at quality control, improving organizational culture, education of employees (Ishikawa, 1985). They provide employees the opportunity to contribute to Toyota's corporate development by *kakushin* (radical innovation),

originality and creativity, to mutually develop and use quality control techniques. Toyota employees are instructed to report any issue by pulling the *andon* cord (light sources attached to machines) and thus stopping the assembly line.

• **Lifelong learning.** Since the pre-war period, TMC has not stopped to identify, adapt and implement the best methods and production techniques by constantly analyzing competitors and learning. The visits made by Sakichi and Kiichiro Toyoda in Europe and the USA allowed them to know and to study on site the most advanced technical and industrial achievements of those times. Without any doubt, Toyota's "mentor" in the automotive industry was the American corporation Ford (Sato, 2008). In the postwar period, TMC set specific objectives and reviewed its best practices by using benchmarking (Hino, 2006) to become leader at a global level. Today, Toyota illustrates a knowledge-based organization which has always recognized the importance of learning and training (e.g., *ninjutsu*- acquiring managerial skills through training), both at the work place (e.g., mentoring, job rotation) and outside it (e.g., conferences, case studies). There are five types of training programs provided by Toyota at the work place (*on the job training*), namely: training programs, programs for foremen, improvement based programs, *kacho* (programs for management) and programs based on skills (Osono et al., 2008). These programs are conducted by talented trainers from various departments of the corporation in their capacity as teachers and mentors for Toyota employees.

• **Factual approach to decision making.** Once the root cause of a problem is identified, Toyota people, especially decision makers, have to apply *genchi genbutsu* (Sato, 2008). A sound decision making is based on *genjitsu* (facts). This is why the TPS has been designed and developed starting from *sangen-shugi* (the "three actualities": the actual object, the actual site, and the actual facts).

Therefore, the permanent concern of TMC for TQM and its passion for BE find full expression in the best practices analyzed above. These practices clearly exhibit the business success achieved by Toyota that grew organically from a small manufacturer of looms from rural areas to the largest corporation in the world in the automotive industry. This assertion is based on two main explanations. Firstly, the best practices of TMC on TQM and BE derived from the TPS. Secondly, these practices are to be found entirely among the BE attributes.

## Conclusions

Today's corporations are competing in an increasingly volatile and adverse environment. In order to survive and grow in a highly globalized business world they are seeking to obtain notable performances. In this respect, the continuous improvement of the quality of their products, services and processes has become one of their main priorities.

The paper contributes to the enrichment of the scientific literature from the quality domain. From a theoretical standpoint, it brings some clarifications regarding the concepts of best practice, TQM, and BE. The work shows that the identification and dissemination of best practices lead to obtaining superior performances which, in turn, guide the corporation towards achieving BE. Then, the paper explains the relationship between TQM and BE, pointing out that, on the one hand, these concepts are two multidimensional concepts that

share a key common element (quality), and on the other hand, they have many similarities, but are not identical, as shown in other studies (Olaru, 1995; Umeda, 1996).

From a practical standpoint, TMC represents one of the most interesting examples of corporations in which quality leads to BE. The paper demonstrates that TPS constitutes an efficient production system that has a decisive contribution to the success gained at a global scale by one of the most representative Japanese corporations from the automotive industry that, in order to eliminate waste, puts quality at the center of its concerns. The importance of the work lies in identifying and analyzing some of the best practices of TMC regarding TQM and BE, such as customer focus, continuous improvement or workforce focus, practices that derived from TPS as shown by other researches (Liker, 2004; Spear, 2008). The results indicate that all these practices are found in the BE attributes and can be disseminated and implemented in other corporations. Further researches could be carried out in order to broaden the spectrum of these successful practices and expand their analysis in correlation with TPS.

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