

Modern Japanese project management – a literature review

Jakub Bazak

Abstract

This article provides an overview of Japanese project management methodologies and their importance in the global business world. It discusses the origins of kaizen, lean management, Gemba, Just-In-Time, kanban, and 5S and their effectiveness in improving productivity and competitiveness. The article also explores the differences between Western and Japanese project management philosophies, highlighting the emphasis on flexibility and process orientation in Japanese methods. The article suggests that cross-cultural learning and collaboration can lead to improvements in project management practices and identifies the strengths of Japanese project management as continuous improvement, customer focus, attention to detail, and teamwork. The paper also recognizes the weaknesses as funding, slow decision-making, lack of self-confidence and cultural barrier. The impact of Japanese culture on work practices is also discussed, including its emphasis on adaptability, collaboration, long-term partnerships and trust, and workplace atmosphere. Overall, the article provides insight into the world of Japanese project management and its potential to influence global business practices.

Introduction

Brief overview of Japanese project management and its importance

Japan is one of the pioneers of project management tools and methods. While the process of developing, naming and implementing them took many years, we can point to an important moment at the end of the previous century. In the 1990s, when Japan was undergoing a deflationary depression (now known as ‘lost ten years’), companies were searching for solutions for their problems and found the answer in the ‘kaikau’. Kaikau stands for reforms, which included many aspects, such as business management, organization and technology- all in an effort of regaining their global economic position (Bredillet, 2007, p.2). Many companies realized the significance of the issue and promoted new ways of running a business. Companies which were observed to be the most successful are those that focused on intellectual property rather than companies whose main focus was their technological abilities. The former was specifically utilizing a holistic approach to the company’s problems and focusing on changing the planning and execution of their strategies and even the whole framework of creating value. Their focus was long-term and meant to grow over many generations (Bredillet, 2007, p.2). All the implemented changes were studied and, under the name of Kaikau Project Management (KPM), a new way of managing projects was born. KPM focuses on our innate perspective ability. It draws its strength from a desire to become better in the future. Creativity and experience-based wisdom are the key elements of a project’s success. KPM was created in order to concentrate on making a working culture full of new discoveries and focus on long-term strategy (Bredillet, 2007, p.5).

KPM together with JPM (Japanese Project Management) and P2M (Program Management) are the base of the knowledge that we can gain from Japan (however, P2M has a wider origin-it is also based in the USA’s project management). Project management can be described as a vital set of

skills and techniques that determine the outcome of the project. The effectiveness of JPM, KPM and P2M is well documented and still vital today (Siang et al., 2013). All of the aforementioned concepts focus on flexibility, communication and expendability as a response to the ever-changing business environment. They are mission-oriented and revolve around the idea of 3K (kaihatsu, kaizen, kakusin) as well as 3S (scheme, system, service project models) (Siang et al., 2013).

Impact of Japanese culture on work practices

Japanese culture is widely known for its differences from the West and even from other Asian countries. Its characteristics also impact work life and culture. Japanese-based corporations are built on flexibility to adapt to different changes in the environment and their framework is based on that concept (Low & Chong, 2015). In Japanese culture, role and responsibility play as important part as adaptability. The other important part of the mix is collaboration ability. Japanese corporations also put heavy emphasis on long partnerships and trust (Ohara & Asada, 2009). Workplace atmosphere is also very important. Many Japanese employees are anxious about the atmosphere in their workplaces- even after going home. Another studied disadvantage is overfocusing on collectivism and hierarchical relationships. For these reasons, they may feel unwilling to leave work without extra hours, especially when their manager is still working (Ono, 2018). From the sociological side, Japanese people are focused on collectivism and humanism; often maintaining established relations is a priority (Siang et al., 2013). However, some people theorize that the most important part of Japanese culture (at least from a project management standpoint) is the willingness to view productivity as a common good (Drucker, 1971).

Article objectives

This article seeks to answer the question of what are the main strengths and weaknesses of Japanese project management methods. In order to do so, the article will compare Eastern philosophy and methods to Western approaches to

identify the differences. In the aftermath of the global pandemic, many companies are searching for a new, more flexible approach and re-introduction to JPM may be the answer. This article aims to present the origin and since-accumulated knowledge of Japanese project management methods, as well as confronting them with today's environment and Western philosophy in order to analyze their strengths and weaknesses. The article will first focus on the main objectives of Japanese project management methods and techniques and later examine their viability in the current business world.

Methodology

This article is meant to be an accumulated source of information and a critical review of previous studies on Japanese project management. The article has a character of a literature review. The purpose of a literature review is to collect relevant, timely research on the chosen topic, and synthesize it into a cohesive summary of existing knowledge in the field. The collected data is a way to build arguments and answer the research question. Literature reviews provide an opportunity to see and even evaluate successful and unsuccessful assessments and research, which can be used to gain knowledge and extend a topic.

The first part of preparing a literature review is conducting a survey through databases in order to find papers relevant to the research question. The process of finding the sources progressed as in Figure 1.

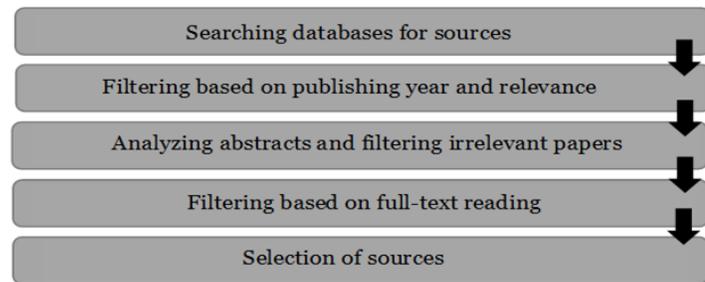


Figure 1. Process of finding sources
Source: own elaboration

The databases searched were: IBUK Libra, EBSCOhost and Google Scholar. The used keywords while searching were at first: Japanese project management, Japanese work culture and Western project management. After reviewing papers, six Japanese methods were chosen, from the standpoint of today's relevance and popularity: kaizen, lean management, Gemba, JIT, kanban and 5S. Later searches were concluded by using their names as keywords. The initial filtering of the results was based on the year of the publishing, with the goal of finding the newest possible sources. The papers related to the methods were often older than ten years, but since the methods were created in the twentieth century, they were accepted for this paper. The initial searches gave over a hundred articles, from which about seventy percent were available for viewing in their entirety. After filtering them through their respective abstracts approximately forty-five articles were left. After the second round of filtering based on full texts, there were twenty-four papers left, of

which all were used in this article. The criteria used for choosing the final sources were as below:

- relevance for the research question and article goals,
- credibility (only peer-reviewed articles),
- reliability of the information,
- only papers in English or Polish language (language barrier),
- objectivity (possible bias).

Most papers were discarded based on the relevance for the research question and article goals, and the reliability of information (some articles were outdated). Apart from that, five articles were rejected because of the language barrier.

After the selection of the articles for this paper, the procedure of surveying started, The process of analyzing the chosen articles was as follows:

- analyzing abstracts and conclusions of respective papers,
- summarizing the main point of the articles,
- analyzing the evidence provided to back up the conclusions of the papers,
- searching for possible flaws,
- reflecting on the relevance of the article, especially in the context of the research question (what are the main strengths and weaknesses of Japanese project management methods).

The data relevant to this article were all shown in chapters three and four. The discussion and conclusions were built on the previously extracted. All of the used sources are listed at the end of the article.

**Key Principles of Japanese Project Management
Kaizen**

Kaizen is a Japanese philosophy that has found its way into becoming one of the most prominent project management methods. In the 50s, when the Japanese government and corporations were facing many issues with outdated management systems and a shortage of labor, they were searching for a resolution in cooperation with the workers- this resulted in the creation of kaizen. Kaizen was propelled by many major Japanese companies, like Toyota, a well-known car-producing corporation. Toyota sought to improve efficiency, productivity and competitiveness (Singh & Singh, 2009). Since then, a lot more companies, not only from Japan, but from around the world have experienced first-hand success in manufacturing that can be credited to the kaizen method. Kaizen is a philosophy focused on continuous improvement and creating value. It can be applied to various processes and can result in the elimination of waste and other issues, improvement of overall quality, an uptick in performance and advance in business operations, management systems and organization's flexibility (Siang et al., 2013). Kaizen can be described as an umbrella term for many other Japanese methods and techniques, such as JIT, Poka-Yoke, Six Sigma, etc. The letters K-A-I-Z-E-N later all got a meaning assigned to them – kanban, approach, improvement, zero-defects, effectiveness and networking (Singh & Singh, 2009). This was done for an easier understanding of the philosophy. All of them together provide a path that the management should follow in order to improve the company's results. There are many examples of the

kaizen method working in practice, for example, a company under the name of Allied Signal Inc. operating in the jet manufacturing industry has seen their results improve by 89% and their productivity increase by 88.5% after implementing the kaizen philosophy to their organization (Singh & Singh, 2009). Although kaizen was first used in manufacturing companies, the approach of continuous improvement, waste elimination, using frameworks and standardized procedures can have a great impact on a project management team, by igniting the creativity for problem-solving and implementing changes. The strive for perfection is a way to deliver the best quality products for the project clients. For those reasons, kaizen is still widely used today.

Lean management

Lean management, similarly to kaizen is a wide concept that could also be described as a parent method to techniques like Gemba, kanban, or JIT. The method originated on the island of Nagoya, Japan. The company that started it all was Toyota Corporation. The new method, which would later be called lean production, was supposed to be contrary to Ford's production methods since they were not compatible with Japanese culture (Molla et al., 2021). "Lean production is the philosophy and practical ways to eliminate all waste in all production processes continuously. By applying the principles of lean, we practically can successfully improve the production processes continuously (Ikatrinasari & Haryanto, 2014)." The name 'lean' is meant to symbolize the desirable 'slim shape' of a company. This non-literal weight loss of a company means the loss of all unused or wrongly used resources both in production and in services (Parkes, 2015). The main focus of lean is added value. The lean philosophy can also be used in an office environment, where it can improve workflow, employee productivity, communication and customer satisfaction, while at the same time reducing stress, costs and lead times (Ikatrinasari & Haryanto, 2014). Research shows that in order to successfully apply lean concepts, project management needs to emerge. There are important steps in the process, such as strategic planning and thorough analysis of the company's inner workings. This is vital for achieving significant improvements and delivering expected goals and products (Ikatrinasari & Haryanto, 2014). Under lean management, projects can focus on customer desires and provide them with a defect-free, timely product.

Gemba

Gemba is a management concept that's connected to kaizen and lean methodologies. It arises from the Japanese culture and in a literal sense means 'the real place', which in lean philosophy can be explained as a workplace where value is created (Santos et al., 2021). Gemba is used as a way to best utilize office space, and reduce waste in the workplace – that stands with a clear connection to our previous subsections. Also similarly to kaizen and lean management the process is meant to be one of continuous improvement and should be chasing perfection (Omotayo & Kulatunga, 2017). Gemba method can be used in project management to enhance in-office processes and build a location when value (especially customer value) is created (BG et al., 2015).

Gemba is based on standardization and discipline within the workplace. Gemba kaizen is meant to utilize the achievements of an entire company, by means of contribution rewards, even for the smallest improvements added to the processes, as finally, they will sum up to a significant change over time. This way the continuous improvement starts at the work floor (BG et al., 2015). The method is often adopted by manufacturing and construction companies, where keeping a utilized working space is crucial for the company to prosper. Now Gemba (or Gemba Walks) are often used in project management as a way for management to be in touch with the process from the ground level and discover possible waste as soon as possible.

Just-In-Time (JIT)

JIT, like many other Japanese management methods, has been introduced by Toyota Corporation, to be specific as a subsystem of TPS (Toyota Production System). The basis of the Just-in-Time notion is making an improvement in processes through efficient handling of used materials. This can be done by using just the right quantity at just the right time. The philosophy of this method can be expressed as a focus on waste elimination, uninterrupted workflow, supplier/client relationships, management commitment and the use of kanban (Pheng & Shang, 2011). The last will be discussed later in this article. The JIT system went from production to construction, and then to other branches of business. Some researchers say that Just-in-Time is the most widely used Japan-originated concept of project management (Kraśniński, 2014). The whole concept of JIT is based on the want to have a minimal possible quantity of materials and processes that are necessary. This way, a company can produce the exactly right amount of products and minimize waste. This results in advantages in utilization, automation, keeping schedules and overall quality (Akturk & Erhun, 1999). All of those things remain in line with kaizen and lean management philosophy. The disadvantage is the fact that it needs a significant initial investment connected to more sophisticated equipment and intensive training (Pheng & Shang, 2011). The same concepts can be used for project management. For starters, it's unwise to start a project that cannot be finished. This way, we can minimize the waste in the company project's budget. As for the project that got a green light, it's important to always think of a way to deliver the best quality products for the customers, while keeping the budget as tight as possible.

Kanban

Kanban is another method that can be traced back to Toyota Corporation, where it was introduced as a technique supporting the JIT system. The word kanban means visual evidence or card in Japanese (Akturk & Erhun, 1999). Kanban was created as a subsystem of TPS and was originally used as a way to administer inventory levels, supplies and production processes overall. Kanban is often described as a Material Flow Control mechanism and it ensures the production of products that are necessary in exact quantity and time (Junior & Godinho Filho, 2010). The kanban method has now transcended TPS and is widely used, not only in production, but in work in general work processes. In

project management, it works by visualizing tasks and helping to discover uncoordinated operations. That means that kanban is a system that allows its users to harmonize their work and reduce waste in production, time, materials and other factors (Akturk & Erhun, 1999). This is especially vital for a project manager, who can have a clear view of all the processes, making it easy to identify potential delays and other issues. An important feature of the kanban method is that it's useful and can have great results even in standardizing a small part of company processes, which is interesting, considering that it's a JIT subsystem, which is generally recommended to use as a comprehensive and holistic company tool (Kraśiński, 2014).

5S

5S is all about creating order at any time and place. The history of that method dates back to 1973 to a Japanese owner of American supermarkets. The method was later implemented by Toyota and the popularity of 5S has only grown since (Kraśiński, 2014). The name of the 5S was coined as an acronym from five Japanese words: sort (seiri), straighten (seiton), shine (seiso), standardize (seiketsu) and sustain (shitsuke). They all represent different steps in the 5S process (Imai, 2007). Sorting is a process of classifying any materials or tools that are used during a process and reducing them to only those which are necessary (Kaushik et al., 2015). Straightening is the second step, which requires visualizing the spaces and tagging everything properly (Kaushik et al., 2015). Shining is the first step after the proper implementation and the third overall- it begins the subsystem of 5S called 3S. It requires keeping the workplace neat and clean. The fourth step is standardize which means that management should keep the processes in previously implemented order. The final step in both 5S and 3S is to sustain, which means that the whole process should be up-kept indefinitely (Kaushik et al., 2015). This method is of great use for project managers, as it helps in creating and later nurturing an organized workplace, focused on effectiveness and creating great quality results. The 5S also helps in the reduction of waste, unnecessary breaks, risks and overall workflow issues (Michalska & Szewieczek, 2007). An important part of the 5S methodology is the implementation- it's vital to begin with training and emphasizing the pros of the method. It's compulsory for the method to work that the employees are adaptable to the change (Kaushik et al., 2015, p.23).

Discussion

Differences in approaches and philosophies

Eastern management philosophy is grounded in traditions, humanistic orientation and the pursuit of harmony. The hierarchy and thought of every person having their place are vital to this approach (Li, 2018). Another important facet is morality, especially considering the management. Their actions should be virtuous and inspire other employees (Li, 2018, p.1310). Japanese philosophy also results in working long workdays, which is a symbol of employee dedication to the company. The dedication is then awarded by a seniority-based pay system, which is traditional in

Japan (Ono, 2018). Project management seen through the lens of Western culture (like PMBOK) is focusing mainly on time, cost and quality. It's more strict, with objectives being grouped into 5 main areas: initiating, planning, executing, monitoring and controlling, while Japanese methods are more flexible and open to changes caused by the project environment, while simultaneously being really detailed-oriented and thoughtful. It stands to reason then, that Western methods are more result-oriented, while Japanese methods are more process-oriented and based on loyalty and trust (Low & Chong, 2015). According to research, the origin of these differences can be traced back to the psychology and sociology of the East and the West. The research by Trompenaars and Hampden-Turner can bring forward a conclusion that the differences between Poland and Japanese management can be traced back to traditional collectivism or individualism. Japanese people are drawn to collectivism (focus on teamwork), while in Poland individualism is valued more. The other aspect of this contrast is the focus on fragmentation in Poland (here representing the general Western approach) and holism, which is easily found in Japanese methods like kaizen and lean, where the improvements have to be made in the entirety of the organization (Kraśiński, 2014). The matter of individualism and collectivism also plays a role in the aspect of guilt and self-confidence. Research shows that Japanese people are more likely to be self-deprecating, while people from the West tend to have much higher opinions of themselves. This leads to different reactions to criticism by a project manager (Brislin et al., 2005, p.92). There's one more interesting fact, that relates to differences in approaches and philosophies. Related research also shows that the Japanese workforce is more likely to blossom their motivation while faced with a shortcoming than their American counterparts. The former is more eager to perform follow-up tasks after failure, while the latter feels more motivated after initial success (Brislin et al., 2005). This could relate to the West's approach being more goal-oriented (wanting to get it right on a first try), while the Japanese being more process-oriented (spending time on learning from mistakes and trying again).

Opportunities for cross-cultural learning and collaboration

Both Eastern and Western management philosophies have their own advantages and disadvantages, which are closely related to their historical and sociological backgrounds. Despite the main differences in characteristics, caused by different approaches, the management styles are still consistent which leaves space for cultural and scientific integration (Li, 2018). A great example of this is the 'mother-ship' of many Japanese project management methods and techniques: Toyota Corporation. Their organizational culture draws inspiration not only from Eastern tradition, like collectivism and the search for harmony, but is additionally influenced by American techniques, as well as Aichi prefecture. All of them together helped to create a global super-power corporation (Parkes, 2015). Connecting East and West ideas on project management doesn't have to mean changing everything from the fundamentals, but rather looking for the details that can be borrowed. Those details

could improve the already well-functioning management approaches. However, there are also those that suggest that some fundamental assumptions may have to be rethought, such as the agency framework (Filatotchev et al., 2020). There are also voices saying that although Japanese project management methods can work perfectly in the Land of the Rising Sun, they may not be so well received elsewhere. This may be caused by many cultural barriers, which stand in the way of their ideal application to Western companies. This doesn't change the fact that many Western companies still seek to find a way to implement them, wanting the same benefits that the methods bring to the Japanese enterprises—high quality, lower number of complaints, great teamwork and a reduction in costs and waste (Podobiński, 2014). Though not every Japanese method can work great in the West and vice versa, there is still a lot of space for making small (or even big) improvements based on collaboration. There is no perfect management theory, but in the spirit of kaizen, we can still search for a direction for further improvement (Li, 2018).

Strengths and weaknesses of Japanese project management

Taking into consideration all of the methods and approaches presented in this article, one can make a statement that the four pillars (strengths) of Japanese project management are:

- continuous improvement,
- attention to detail,
- customer focus,
- teamwork.

Continuous improvement is the main thought behind kaizen and lean management. Since they can both be described as umbrella terms and origin places for all the other methods and techniques, it's fair to assume that this is one of the most important parts of Japanese project management. The other main facet is attention to detail, which is strictly connected with continuous improvement. The process is meant to be ever-changing and ever-refining, so all the tiniest details sooner or later will have to be taken into consideration on how they could be improved. The third mentioned aspect is customer focus. Lean management, Gemba method, JIT are all concentrated on delivering the highest quality to customers and their satisfaction is at the forefront of the process. The last ingredient is teamwork— as mentioned earlier, collectivism is a big part of Japanese culture, so the Japanese project management methods thrive on collaboration and sharing knowledge and ideas.

Also, based on this article, one can deduct that the weaknesses of Japanese project management are as follow:

- funding,
- slow decision-making,
- lack of self-confidence,
- cultural barrier.

Funding is listed as the first one, because all of the earlier discussed methods, techniques and approaches can be costly to implement and maintain (since they are based on continuous improvement they are meant to be ever-lasting). The second is slow decision-making. This can be described as a con of the collectivist approach, because there's a lack of

one-man decisions. All resolutions are meant to serve everyone and because of that, they can be over-consulted. The third problem is the lack of self-confidence, also caused by collectivism. The final weakness is the cultural barrier. The Japanese approach is so different from the West, that there may be many conflicts based on cultural contrasts while working with companies from Europe or North America.

Conclusions

Reflection on the significance of Japanese project management in today's global economy

Japanese project management techniques have had a significant impact on the global economy. Japan's success in post-World War II economic development and the rise of the Japanese manufacturing industry in the 1980s and 1990s were largely attributed to its innovative project management methodologies, such as kaizen and lean management. These techniques focused on improving efficiency, reducing waste, and continuously improving processes, resulting in higher productivity and better quality products. One of the most significant contributions of Japanese project management to the global economy is the development of the Toyota Production System (TPS). This system revolutionized the manufacturing industry, leading to the creation of JIT, Gemba or kanban. Japanese project management techniques have been widely adopted and adapted by businesses around the world. Today, many companies have incorporated lean principles into their project management approaches. The significance of Japanese project management lies in its ability to improve efficiency and productivity, reduce costs, and enhance the quality of products and services. In today's global economy, where businesses operate in an increasingly interconnected and competitive environment, the Japanese approach to project management has much to offer. By focusing on continuous improvement, teamwork, and attention to detail, companies can become more efficient, innovative, and successful. In conclusion, Japanese project management techniques have had a significant impact on the global economy and continue to be relevant today. By adopting these techniques, organizations can improve their competitiveness and enhance their ability to succeed in an increasingly competitive and rapidly changing business environment.

Summary of key points

As this article is a literature review and not conducting research, it is bound by some limitations. The main limitations are related to the language barrier, availability and accessibility of literature and subjective bias in selecting sources. Those limitations must be considered while reviewing the conclusions of this article, which are presented below.

Japan is a pioneer of project management tools and methods, with the Kaikaku Project Management (KPM) as a new way of managing projects that focuses on creativity, experience-based wisdom, and long-term strategy. Japanese culture influences work practices, including adaptability, collaboration, long-term partnerships and trust, and workplace atmosphere. The willingness to view productivity as a

common good is an essential aspect of Japanese culture in project management. Japanese management methodologies, such as Kaizen, Lean management, Gemba, and Just-In-Time (JIT), have gained global recognition and are widely used in project management. They have been successful in improving the efficiency, productivity, and competitiveness of companies around the world. Western project management methods, such as PMBOK, are more result-oriented, while Japanese methods are more flexible,

process-oriented, and emphasize teamwork and attention to detail. Integrating Eastern and Western management ideas can lead to improvements in project management practices. The strengths of Japanese project management are continuous improvement, attention to detail, customer focus, and teamwork. The weaknesses of Japanese project management are funding, slow decision-making, lack of self-confidence and cultural barrier.

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