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## Revolutionizing Manufacturing Business: Unleashing The Power of Kaizen and Target Costing for Sustainable Success

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### Abstract

In today's highly competitive manufacturing industry, achieving sustainable success requires constant innovation and cost optimization. Two proven methodologies for achieving these goals are Kaizen and Target Costing. Kaizen, a Japanese concept that translates to "continuous improvement," focuses on optimizing processes and eliminating waste to achieve maximum efficiency. Target Costing, on the other hand, is a cost management approach that sets a target cost for a product based on customer needs and competitive pricing, and then works backward to achieve that cost through efficient design and production.

This paper explores the potential of combining Kaizen and Target Costing to offer the ultimate solution to the manufacturing business. By integrating these methodologies, manufacturers can achieve both continuous improvement and cost optimization, leading to sustainable success. This paper will delve into the principles and practices of Kaizen and Target Costing and provide real-world examples of their successful implementation in manufacturing businesses. Additionally, the paper will discuss the challenges that may arise during implementation and offer suggestions for overcoming them.

Overall, this paper argues that the integration of Kaizen and Target Costing offers a powerful solution to the challenges faced by manufacturing businesses today, enabling them to achieve sustainable success in a highly competitive market.

**Keywords:** Kaizen, Target Costing, Continuous Improvement, Sustainable Success, Competitive Market.

### Introduction

The manufacturing industry is highly competitive, with companies competing on various factors such as cost, quality, innovation, and sustainability. To remain competitive in an increasingly globalized market, companies must continuously and effectively seek out innovative approaches to improve their processes and products. It is very important for the industry to possess accurate, relevant, and reliable information to adapt to the current

economic systems and to withstand the challenges they faced (Abate and Mengesha, 2020; Hailu et al., 2020; Suarez and Miguel, 2020; Alkababji, 2015).

The adoption of cutting-edge technologies is one aspect boosting competition in the manufacturing industry. Companies that leverage these technologies effectively will gain a competitive advantage by enhancing efficiency and productivity. There is also increased competition from emerging markets, as companies in these countries often have lower labor costs and can offer products at a lower price point. This has led to the globalization of the manufacturing industry, with companies seeking to tap into new markets and access a wider range of resources and expertise. In response to these economic, environmental, and technological changes, various modern strategic management accounting methods have emerged, with the most important being Target Costing and continuous improvement (Kaizen) techniques (Alkababji 2023). It aims to reduce production costs by enabling employees to express their opinions and suggest appropriate recommendations for company development (Carnerud et al., 2018).

In the manufacturing industry, sustainability is gaining importance as investors and consumers become more concerned about the environmental impact of products. Companies that can distinguish themselves in the market and acquire a competitive edge can show their dedication to sustainability. A cost management system is a tool or process used to track and control the costs associated with a business. It helps to ensure that a business stays within budget by tracking actual costs against the budget and identifying areas where costs can be reduced or controlled more effectively (Drury, 2008).

Some common components of a cost management system include budgeting, cost estimation, cost tracking, and cost control. Budgeting involves setting a financial plan for a business, including the costs that are expected to be incurred and the revenues that are expected to be generated. Cost estimation involves determining the likely cost of a business based on historical data and other factors. Cost tracking involves monitoring the actual costs incurred during a business and comparing them to the budget. Cost control involves implementing measures to keep costs within budget and identifying ways to reduce or eliminate unnecessary costs.

There are many different types of cost management systems, ranging from simple spreadsheet-based systems to more complex software-based systems. The specific features and capabilities of a cost management system will depend on the needs of the business.

### **Conceptual and Theoretical Framework**

The modern business environment surrounding industrial companies has undergone significant changes and is now noticeably different from the traditional one. These changes have had a significant impact on the production and cost systems of industrial facilities, including increased production capacity, global competition, a focus on customer service, and technological advancements. As a result, new manufacturing techniques that add new product characteristics that traditional production systems cannot provide have become necessary.

## Literature Review

### **Concept and objectives: Target Costing, continuous improvement, and sustainable competitive advantage**

#### *Target Costing*

Target Costing is a cost management system that involves setting a target cost for a product or service. Antari (2020) affirmed that Target Costing is the process of calculating a product's cost by estimating the required profit given the product's market price. If the company can produce the product at or below the target cost, then it becomes feasible to achieve the target profit. It is a tool that is employed during the design and development phase to encourage improvement to minimize the costs of the product's future manufacturing and increase efficiency to meet the target cost (Sani & Allahverdzadeh, 2012). The objective of Target Costing is to ensure that companies' products are competitively priced and profitable (Rattray et al., 2007). Usually, market research is used to determine the target cost and to analyze the prices of similar products provided by competitors (Lee & Monden, 1996).

Target Costing is commonly used in the manufacturing industry, but it can also be used in the service industry. It can be an effective approach to ensure that a company's products or services are competitively priced and profitable, while still meeting customer demands and expectations. Khechai and Abdelkader (2021) also highlighted that Target Costing combines customer requirements, product quality, and cost reduction, making it an entry point for reducing costs and managing them during the planning and product design stages. However, to ensure that the target cost is realistic and achievable, it is important to thoroughly evaluate the target market and the costs that will be incurred to develop and deliver the product.

Using Target Costing in the manufacturing industry has both advantages and disadvantages. Through Target Costing, the companies would be able to boost their profitability and customer focus while also becoming more competitive and profitable. Target Costing is an effective cost management technique to manage and control product costs at the design and development stage of the product life cycle (Omar et al., 2015). Improved competitiveness in Target Costing helps companies to offer products at a lower price, making them more attractive to customers and gaining a competitive edge in the market by setting a target cost and concentrating on cost reduction (Briciu & Căpușneanu, 2013).

Improved competitiveness can also result in higher profits since a company can sell more products at a lower price while retaining the required profit margin. Furthermore, a company that can reduce costs through Target Costing may be able to invest more in research and development, which can lead to the invention of new and creative products that can boost competitiveness even further.

Improved customer focus in Target Costing can lead to several benefits for a company. One of the benefits is increased customer satisfaction. A company that is focused on meeting the needs and expectations of its customers is more likely to produce products that are suited to their needs and preference. By setting a target cost and focusing on cost reduction, a company can also offer lower prices to its customers, which can boost value and satisfaction (Cooper & Slagmulder, 1997).

However, there may be certain disadvantages to implementing Target Costing in the manufacturing industry. Setting the goal cost would be challenging, and there would be

opposition to change as well as a risk of sacrificing quality. Accurately estimating the cost of manufacturing and the possible market price for the product is one of the main challenges. This necessitates a detailed comprehension of the labor, and inputs needed for production, as well as the market environment, competitors, and customer preferences. Additionally, a company needs to ensure that the target cost is realistic and achievable. If the target cost is too high, it might be difficult or impossible to achieve, which could result in frustration and reduced efficiency. Setting a target cost can be a difficult and time-consuming procedure that involves a complete understanding of the manufacturing process, the market environment, and the company's capabilities (Briciu & Căpușneanu, 2013).

Another concern of employing Target Costing is that a company may be tempted to forgo the quality of the products to achieve the target cost. This could happen if the target cost is too low, and the company is unable to identify ways to reduce costs without sacrificing quality. Furthermore, sacrificing quality to achieve target costs can lead to greater customer dissatisfaction and loss of customer loyalty, as customers may be hesitant to keep purchasing products or services that do not fulfill their needs. In the long run, this might have a negative impact on the company's profitability and reputation. Therefore, companies that use Target Costing must carefully assess the risks of sacrificing quality to meet the target cost, and they must discover strategies to reduce costs without sacrificing quality (Singh & Kumar, 2014).

Target Costing implementation might require significant changes to a company's production and cost management systems, like Kaizen, which may result in employee resistance to change.

### *Kaizen Costing*

Kaizen Costing is a type of cost management system that is used to continuously improve the efficiency and effectiveness of a business or production process (Chen et al., 2000). Improvements are made to a process by making small changes over time rather than by making large innovations. The word "Kaizen" is made up of two concepts: Kai which means "change" and Zen which means "for the better" (Palmer, 2001). In 1986, Imai was the one who initiated and put into practice the first Kaizen operations to increase efficiency, productivity, and competitiveness in Toyota, a Japanese automobile manufacturing business. This was done in response to the growing pressures of globalization and increased competition at the time (Singh & Singh, 2009).

In Kaizen Costing, the focus is on reducing waste and increasing efficiency to lower costs and improve the quality of products or services. This is achieved through a process of ongoing improvement, in which employees at all levels of the company are encouraged to identify and suggest ways to streamline processes, eliminate waste, and reduce costs (Chen et al., 2000). It is presumed that they have a superior understanding of how to improve the process because they are the ones who are the most familiar with the manufacturing process and the customers. Additionally, they are expected to have greater insights into how costs can be reduced. Therefore, a prominent element of Kaizen Costing is that it does not come accompanied by a group of methods or procedures that are routinely carried out to accomplish the goal of achieving cost reductions.

Kaizen Costing is often used in the manufacturing industry, but it can also be applied to other types of businesses, such as service industries. It is an important part of lean manufacturing and lean management, which are focused on maximizing value and minimizing waste in all aspects of a business. Lean manufacturing focuses on streamlining production processes and eliminating waste to increase efficiency and reduce costs, while lean management is a broader approach that involves applying the principles of lean manufacturing to all aspects of a business, including design, development, production, and sales (Kalva et al., 2018).

Using Kaizen Costing in the manufacturing industry has both advantages and disadvantages. The company would be able to reap advantages from Kaizen Costing in terms of continuous improvement, involvement of all employees, cost savings, and quality improvement. Based on continuous improvement, Kaizen Costing continuously seeks strategies to improve operations and reduce costs. A manufacturing company can achieve this by identifying and eliminating waste in its processes, which will result in cost savings by reducing the amount of time and resources required to complete activities (Kaur, 2014). In addition, a manufacturing company may reduce the cost of rework and improve the quality of its goods and services by identifying and resolving the root causes of problems (Zailani et al., 2015). This can help a manufacturing company stay competitive and improve its bottom line.

Kaizen Costing encourages all employees, regardless of their level or role, to contribute ideas for improving processes and reducing costs (Chen et al., 2000). It is presumed that they have a superior understanding of how to improve the process because they are the ones who are the most familiar with the manufacturing process and the customers. Additionally, they are expected to have greater insights into how costs can be reduced (Chen et al., 2000). Therefore, a prominent element of Kaizen Costing is that it does not come accompanied by a group of methods or procedures that are routinely carried out to accomplish the goal of achieving cost reductions. Integrating staff in Kaizen can improve outcomes for companies and create a more positive and engaged workforce. As a result, there may be greater employee engagement and motivation as well as a sense of empowerment and ownership.

There are several advantages of cost savings in Kaizen, which can help companies to improve their financial performance and competitiveness. For example, by continuously identifying and implementing ways to reduce waste and increase efficiency, Kaizen Costing can help a manufacturing company save money on materials, labor, and other costs. These would help companies to improve their cash flow performance and increase their financial flexibility. By reducing costs, companies could offer competitive prices and improve the value they provide to customers, promoting customer satisfaction.

Quality improvement is a significant advantage of Kaizen. Companies would reduce producing defective products with Kaizen since the defect's root cause has been identified and addressed before the new production began. As a result, this would reduce or eliminate the cost of reworking defective products (Zailani et al., 2015). Customer satisfaction will grow along with brand reputation and customer loyalty because of the improved quality. Companies with a good reputation can win more business and expand their market share. Overall, improving quality is a key benefit of Kaizen as it can result in several advantageous outcomes for companies and their stakeholders.

Nevertheless, there are also potential disadvantages to utilizing Kaizen Costing in the manufacturing industry, such as high implementation costs and resistance to change. Kaizen

implementation has the potential to come with upfront costs, such as those associated with staff training and the development of systems and processes. These expenses may be significant, especially for companies that are revamping their entire operation or making big adjustments to their current procedures.

Employee resistance to change is a common problem that companies experience when implementing Kaizen or other initiatives for continuous development (Zailani et al., 2015). Employees may be resisted change when they are uncertain about the impact of the changes on them and their work. This is due to a lack of understanding of the purpose of the changes. Furthermore, employees may believe that the planned changes will take away their autonomy or control over their job, as well as demand them to learn new skills or operate in new ways, particularly if they are already stretched for time or resources. Employees may also be averse to change if they have had bad experiences with it in the past, such as changes that were poorly planned or had unfavorable effects. Some employees may resist change and may be resistant to the idea of constantly having to identify and implement improvements. This can make it difficult to fully implement Kaizen Costing.

However, to ensure their survival businesses will need to adopt both Target Costing and Kaizen Costing since this is one important element to achieving sustainable advantage. This advantage allows them to survive in the face of fierce competition for as long as possible. As a result, these businesses are encouraged to focus their efforts and resources towards attaining this advantage. Probably, Hamad (2020) defined sustainable advantage as the facility's ability to develop and implement strategies that put it in a better position than competitors by optimally leveraging its competencies and capabilities. Therefore, to achieve their goals and maintain a sustainable competitive advantage, industrial companies must adopt new philosophies and procedures and collaborate seamlessly with each other to achieve control and stability (Al-Khateeb et al., 2019; Paulson et al., 2021).

### **Challenges of implementation of Target Costing and Kaizen Costing and ways to overcome the challenges**

Target Costing and Kaizen are two popular management techniques in the manufacturing industry that can help businesses reduce costs and increase profitability. However, there are several challenges that businesses may face when implementing these techniques.

One of the main challenges in implementing Target Costing is setting realistic cost targets. Target Costing involves setting a target cost for a product and then designing the product to meet that cost. However, most institutions' administrations lack the capability to apply this method, as noted by (Shallah, 2021). On the other hand, if the target cost is set too low, it may result in a product that does not meet customer expectations or quality standards but if the cost is set too high, the product may not be competitive in the market. To achieve real cost reduction, organizations can employ value engineering technology, which involves the use of so-called functional analysis (Alkababji, 2023).

Another challenge with Target Costing is that it requires close collaboration between different departments such as engineering, design, production, and procurement. A lack of communication and coordination between these departments can lead to delays and inefficiencies in the Target Costing process. A study by Swenson et al (2005) states that

Target Costing as one of many management accounting initiatives must be driven by top management. It is further supported by, Huh et al; 2008 who found that the most important factor for the successful implementation of Target Costing among Japanese companies is top management support, linkage to profit planning, and cross-functional team.

On the other hand, Kaizen is a continuous improvement process that involves making small changes to improve efficiency and reduce waste. One challenge in implementing Kaizen is that it requires a culture of continuous improvement, which may not be present in all organizations. Getting employees to embrace change and consistently look for ways to improve processes can be difficult. A study by Bateman and Rich (2003) in Britain revealed that the corporate culture in organizations was a key barrier to the effective implementation of the Kaizen strategy, and that process improvement initiatives were, therefore, reliant on a change of culture within organizations

Another challenge with Kaizen is that it requires a significant investment in time and resources to implement. The process of identifying areas for improvement, implementing changes, and monitoring the results can be time-consuming and costly. It can also be difficult to measure the impact of Kaizen initiatives on the bottom line, which can make it challenging to justify the investment. In the same context, a study by Johnston et al (2001) found that, in continuous improvement, lack of participation in target setting was likely to undermine the team-based empowerment philosophy of the Kaizen strategy.

In conclusion, while Target Costing and Kaizen can be effective management techniques for improving manufacturing processes, they do present challenges in their implementation. Businesses must carefully consider these challenges and develop strategies to overcome them to achieve success with these techniques.

The challenges of implementation can be overcome by a few of the techniques below:

**Setting Realistic Cost Targets:** To ensure that cost targets are realistic, it's important to involve all relevant departments in the Target Costing process, such as engineering, design, production, and procurement. Conduct thorough research on materials, labor, and overhead costs and benchmark against competitors' products. Make sure that cost targets are achievable without compromising product quality or customer expectations. It is important to ensure that the target cost reduction is real and achieved through a set of activities that concentrate on breaking and challenging existing standards to reduce overall product costs through all available means (Alkababji, 2023).

**Establishing Communication and Coordination:** To ensure close collaboration between different departments, businesses can establish regular meetings or workshops where all parties can discuss the Target Costing process, share information, and work together to identify opportunities for cost savings. A study by Normah et al (2015) states that efficient supply chain management is an important element in the successful implementation of Target Costing and that all manufacturing firms should establish closer ties with suppliers who have a distinctive role to enhance product value in Target Costing practices.

**Creating a Culture of Continuous Improvement:** To encourage employees to embrace change and to consistently look for ways to improve processes, businesses can develop a



culture of continuous improvement by providing training and development opportunities, recognizing, and rewarding employees for their contributions, and involving employees in the improvement process. Kaizen is the most suitable tool for continuous improvement and survival in business (Verma et al., 2023; Hamdamen et al., 2018).

**Investing Time and Resources:** To ensure that Kaizen initiatives are successful, businesses must be willing to invest time and resources in the process. This may involve dedicating a team of employees to the Kaizen process, providing training and development opportunities, and establishing a system for tracking the impact of Kaizen initiatives on the bottom line. This can be justified by the fact that the more the company's management adopts continuous improvement, the more effectively it can address defects, leading to development and creativity and ultimately achieving a sustainable competitive advantage for the establishment. This finding is in line with the results of Hirzel et al (2017); Alencar (2019), which showed that the application of continuous improvement techniques contributes to achieving a competitive advantage for enterprises by enhancing their ability to innovate more than their competitors. With the increase in market competitiveness, most organizations continuously work and make efforts to make changes to their business (Macpherson et al., 2015).

By implementing these suggestions, businesses can overcome the challenges of implementing Target Costing and Kaizen and achieve success with these management techniques.

### **Conclusion**

It is not accurate to claim that either Kaizen or Target Costing offers the "ultimate solution" to the manufacturing business. Both Kaizen and Target Costing are two cost management systems that can be used to improve the efficiency and competitiveness of a manufacturing business. However, it's important to remember that neither Kaizen nor Target Costing is a universally applicable solution. The effectiveness of these systems will be determined by various factors, including the size and complexity of the company, the nature of its products and processes, and the culture and attitudes of its employees.

Ultimately, the ultimate solution for a manufacturing business will depend on its specific needs and goals. It may be useful to consider a combination of Kaizen and Target Costing. The combination of Kaizen and Target Costing can provide a comprehensive solution for manufacturing companies looking to improve efficiency and competitiveness. This can be supported by a study (Alkababji, 2023) where findings of the study revealed that the integration of Target Costing and continuous improvement had a positive impact on achieving sustainable competitive advantage in Palestinian industrial companies. However, the study found no impact on company size, age, or industrial sector on achieving a competitive advantage in terms of market share or other results.

Kaizen is a continuous improvement methodology that optimizes processes and eliminates waste to achieve maximum efficiency. By implementing Kaizen, manufacturing businesses can streamline their operations, improve their quality control, and increase their efficiency, ultimately leading to cost savings and higher profitability. A company can avoid larger problems from arising and keep the production process running smoothly by identifying and

addressing small issues as they arise. This can be justified by the fact that the more the company's management practices continuous improvement, the more effectively it can address defects, resulting in development and creativity and, eventually, sustainable competitive advantage for the establishment (Alkababji, 2023)

Target Costing, on the other hand, is a cost management methodology that sets a target cost for a product based on customer needs and competitive pricing by focusing on the primary cost drivers in the manufacturing process. By implementing Target Costing, manufacturing businesses can design products that meet customer needs while remaining cost-effective, allowing them to compete in a highly competitive market. Target Costing aids in cost reduction and, as a result, lower selling prices while maintaining required product quality, resulting in increased demand. This helps to increase the competitive advantage of businesses (Alkababji, 2023). The findings of this study are consistent with those of previous studies by Al-Khateeb et al (2019); Alkababji (2014); Hamoud (2019), all of which discovered that using the target cost variable leads to a competitive advantage.

Together, Kaizen and Target Costing can provide direction for businesses to achieve both continuous improvement and cost optimization, which may lead to sustainable success. The continuous improvement focus of Kaizen ensures that processes are always evolving and improving, while the cost optimization focus of Target Costing ensures that products are designed and produced efficiently, keeping costs under control. Together, these methodologies can help manufacturing businesses stay ahead of the competition and achieve long-term success in the industry.

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