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MOGUĆNOST PRIMENE LEAN MENADŽMENTA U SAVREMENIM PREDUZEĆIMA

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Rezime

Lean menadžment predstavlja savremeni pristup upravljanju usmeren na eliminaciju rasipanja (gubitaka), povećanje efikasnosti i kontinuirano unapređenje poslovnih procesa. Cilj ovog rada je da analizira mogućnosti primene Lean principa u savremenim preduzećima, sa posebnim osvrtom na koristi, ograničenja i faktore uspešne implementacije. Metodološki okvir obuhvata analizu relevantne naučne literature, komparativnu analizu i studije slučaja. Rezultati ukazuju da Lean pristup doprinosi povećanju produktivnosti, kvaliteta i zadovoljstva korisnika, ali njegova implementacija zahteva organizacionu transformaciju, snažno liderstvo i kontinuiranu edukaciju zaposlenih.

Ključne reči: Lean menadžment, Kaizen, efikasnost, optimizacija procesa, digitalizacija, organizaciona kultura

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UVOD

Savremeno poslovno okruženje karakterišu intenzivne i dinamične promene koje su rezultat globalizacije tržišta, ubrzanog tehnološkog razvoja i sve veće konkurencije među preduzećima. Organizacije su danas suočene sa pritiskom da istovremeno smanjuju troškove, povećavaju kvalitet proizvoda i usluga, kao i da brzo odgovaraju na promenljive zahteve kupaca. U takvim uslovima, tradicionalni modeli upravljanja često nisu dovoljni da obezbede dugoročnu održivost i konkurentsku prednost.

Jedan od pristupa koji se izdvojio kao posebno efikasan u unapređenju poslovnih performansi jeste Lean menadžment. Ovaj koncept nastao je u okviru japanske automobilske industrije, pre svega kroz razvoj Toyota Production System-a, ali je vremenom evoluirao u univerzalnu filozofiju upravljanja primenljivu u različitim sektorima. Osnovna ideja Lean pristupa jeste stvaranje maksimalne vrednosti za kupca uz minimalno korišćenje resursa, odnosno eliminacija svih oblika rasipanja u poslovnim procesima. Za razliku od tradicionalnih pristupa koji se često fokusiraju na pojedinačne funkcije unutar organizacije, Lean menadžment posmatra preduzeće kao integrisani sistem međusobno povezanih procesa. Fokus se stavlja na tok vrednosti – od nabavke sirovina do isporuke finalnog proizvoda ili usluge krajnjem korisniku. Time se omogućava identifikacija neefikasnosti i uskih grla u procesu, što predstavlja osnov za kontinuirano unapređenje.

Poseban značaj Lean menadžmenta ogleda se u njegovoj fleksibilnosti i mogućnosti primene u savremenim uslovima digitalne ekonomije. Danas se Lean principi sve češće kombinuju sa digitalnim alatima kao što su sistemi za upravljanje podacima, automatizacija procesa i veštačka inteligencija, čime se dodatno unapređuje efikasnost poslovanja.

Međutim, uprkos brojnim prednostima, implementacija Lean menadžmenta nije jednostavan proces. Ona podrazumeva promenu organizacione kulture, načina razmišljanja zaposlenih, kao i aktivno učešće menadžmenta u procesu transformacije. Zbog toga je važno analizirati ne samo koristi, već i izazove koji prate njegovu primenu.

Cilj ovog rada jeste da se ispita mogućnost primene Lean menadžmenta u savremenim preduzećima, kao i da se identifikuju ključni faktori koji utiču na uspešnost njegove implementacije. Rad će kroz teorijski i praktični pristup pružiti sveobuhvatan uvid u značaj Lean filozofije u modernom poslovanju.

2. TEORIJSKI OKVIR LEAN MENADŽMENTA

Lean menadžment predstavlja kompleksan teorijsko-praktični koncept koji objedinjuje elemente operacionog menadžmenta, organizacione teorije i teorije kvaliteta. Njegova teorijska osnova ne počiva isključivo na operativnim alatima, već na sistemskom razumevanju organizacije kao dinamičkog skupa međuzavisnih procesa.

U teorijskom smislu, Lean menadžment se može posmatrati kroz više perspektiva: kao filozofija upravljanja, kao skup principa i kao operativni sistem. Kao filozofija, Lean naglašava vrednost za kupca i eliminaciju rasipanja. Kao principijelni okvir, definiše način organizacije procesa, dok kao operativni sistem nudi konkretne alate i metode za implementaciju.

2.1. Lean kao sistemski pristup

Lean menadžment je zasnovan na sistemskoj teoriji organizacije, prema kojoj se preduzeće posmatra kao celina sastavljena od međusobno povezanih elemenata. Promena u jednom delu sistema

utiče na ostale delove, zbog čega optimizacija pojedinačnih segmenata ne garantuje ukupnu efikasnost.

U tom kontekstu, Lean pristup insistira na optimizaciji celokupnog toka vrednosti, a ne pojedinačnih funkcija. Time se prevazilazi funkcionalna fragmentacija koja je karakteristična za tradicionalne modele upravljanja.

2.2. Teorija vrednosti u Lean konceptu

Jedan od ključnih teorijskih stubova Lean menadžmenta jeste koncept vrednosti. Vrednost se definiše isključivo iz perspektive krajnjeg korisnika, što predstavlja značajan otklon od tradicionalnih pristupa gde organizacija sama određuje šta smatra vrednim.

U Lean teoriji razlikuju se tri vrste aktivnosti:

- aktivnosti koje dodaju vrednost
- aktivnosti koje ne dodaju vrednost ali su neophodne
- aktivnosti koje ne dodaju vrednost i treba ih eliminisati

Ova klasifikacija omogućava preciznu analizu procesa i identifikaciju prostora za unapređenje.

2.3. Koncept rasipanja (muda) i efikasnosti

Centralni element Lean teorije jeste eliminacija rasipanja (muda). Ovaj koncept ima snažnu vezu sa ekonomskom teorijom efikasnosti, jer podrazumeva optimalno korišćenje resursa.

Pored klasičnih sedam oblika rasipanja (prekomerna proizvodnja, čekanje, transport, obrada, zalihe, pokreti i defekti), savremena teorija uključuje i osmi oblik – neiskorišćen ljudski potencijal.

Sa teorijskog aspekta, eliminacija rasipanja doprinosi povećanju:

- tehničke efikasnosti
- alokativne efikasnosti
- dinamičke efikasnosti

2.4. Kontinuirano unapređenje i organizaciono učenje

Lean menadžment je tesno povezan sa teorijom organizacionog učenja. Koncept Kaizen predstavlja praktičnu primenu ideje da organizacije treba kontinuirano da uče i unapređuju svoje procese.

U ovom kontekstu, Lean podstiče:

- učenje kroz praksu
- razmenu znanja među zaposlenima
- eksperimentisanje i inovacije

Ovakav pristup doprinosi stvaranju "učee organizacije", koja je sposobna da se brzo prilagođava promenama u okruženju.

Sa stanovišta teorije menadžmenta kvaliteta, Lean naglašava značaj standardizacije procesa. Standardizacija omogućava stabilnost procesa i predstavlja osnovu za njihovo dalje unapređenje.

Istovremeno, Lean uvodi vizuelnu kontrolu i transparentnost, čime se olakšava identifikacija problema i donošenje odluka.

Teorijski okvir Lean menadžmenta uključuje i organizaciono ponašanje i liderstvo. Lean kultura se zasniva na poverenju, odgovornosti i uključenosti zaposlenih.

Lideri u Lean organizacijama imaju ulogu facilitatora, a ne samo donosioca odluka. Njihova funkcija je da podrže zaposlene, uklone prepreke i podstaknu kontinuirano unapređenje.

Lean menadžment se u savremenoj teoriji sve češće povezuje sa drugim konceptima, kao što su:

- Agile menadžment (fleksibilnost i brzina)
- Six Sigma (smanjenje varijacija i grešaka)
- Total Quality Management (TQM)
- digitalna transformacija

Ova interdisciplinarna povezanost potvrđuje da Lean nije izolovan koncept, već deo šireg teorijskog okvira savremenog menadžmenta.

3.METODOLOGIJA ISTRAŽIVANJA

Metodologija ovog rada zasniva se na sistematskom i teorijski utemeljenom pristupu proučavanju Lean menadžmenta, sa ciljem da se obezbedi sveobuhvatno razumevanje njegove primene u savremenim preduzećima. Polazeći od kompleksnosti samog koncepta Lean menadžmenta, istraživanje je usmereno ka integraciji teorijskih saznanja i praktičnih primera, kako bi se omogućilo sagledavanje ovog fenomena iz više uglova.

Predmet istraživanja obuhvata analizu mogućnosti primene Lean menadžmenta u savremenim organizacijama, dok je osnovni cilj rada da se utvrdi u kojoj meri Lean principi doprinose unapređenju poslovnih performansi, kao i da se identifikuju ključni faktori koji utiču na uspešnost njegove implementacije. U tom kontekstu, posebna pažnja posvećena je razumevanju odnosa između teorijskih postulata Lean koncepta i njihove praktične primene u različitim sektorima.

U istraživačkom procesu korišćen je kombinovani metodološki pristup. Deskriptivna metoda omogućila je definisanje i objašnjenje osnovnih pojmova i principa Lean menadžmenta, dok je analitička metoda primenjena u cilju razlaganja složenih organizacionih fenomena na njihove sastavne elemente. Komparativni pristup korišćen je za upoređivanje različitih modela implementacije Lean koncepta, kao i za analizu razlika u njegovoj primeni među preduzećima iz različitih delatnosti. Pored toga, metoda studije slučaja omogućila je detaljnije sagledavanje

konkretnih primera iz prakse, čime je dodatno osnažena empirijska dimenzija rada.

Istraživanje se pretežno zasniva na sekundarnim izvorima podataka, uključujući relevantnu naučnu i stručnu literaturu, akademske radove, kao i publikacije i izveštaje organizacija koje su implementirale Lean principe. Ovakav pristup omogućava izgradnju čvrste teorijske osnove, ali i uvid u praktične efekte primene Lean menadžmenta u realnim poslovnim uslovima.

Analiza prikupljenih podataka sprovedena je kvalitativnim putem, kroz interpretaciju stavova različitih autora i sintezu rezultata prethodnih istraživanja. Fokus analize bio je na identifikaciji obrazaca, zajedničkih karakteristika i ključnih zaključaka koji se ponavljaju u literaturi, što omogućava donošenje relevantnih i utemeljenih zaključaka.

Iako ovakav metodološki pristup pruža značajne uvide, potrebno je ukazati i na određena ograničenja istraživanja. Pre svega, oslanjanje na sekundarne izvore podataka može uticati na nivo objektivnosti, dok izostanak primarnog empirijskog istraživanja, kao što su ankete ili intervjui, ograničava mogućnost direktnog ispitivanja stavova zaposlenih i menadžera. Takođe, postoji mogućnost subjektivne interpretacije analiziranih podataka.

Uprkos navedenim ograničenjima, primenjena metodologija omogućava sveobuhvatno i relevantno sagledavanje mogućnosti primene Lean menadžmenta, pružajući čvrstu osnovu za dalja istraživanja u ovoj oblasti.

4. MOGUĆNOSTI PRIMENE LEAN MENADŽMENTA

Mogućnosti primene Lean menadžmenta u savremenim preduzećima su široke i višedimenzionalne, s obzirom na njegovu fleksibilnost i sposobnost prilagođavanja različitim

organizacionim strukturama i industrijama (Gojkov, 2025). Iako je Lean prvobitno razvijen u proizvodnom sektoru, savremeni trendovi ukazuju na njegovu uspešnu primenu u uslužnim delatnostima, informacionim tehnologijama, finansijskom sektoru, kao i u javnoj upravi.

U proizvodnim preduzećima Lean menadžment omogućava optimizaciju proizvodnih procesa kroz smanjenje zaliha, skraćanje vremena ciklusa i povećanje efikasnosti korišćenja resursa. Fokusiranjem na tok vrednosti, organizacije mogu identifikovati i eliminisati aktivnosti koje ne doprinose krajnjem proizvodu, čime se postiže veća produktivnost i kvalitet.

U uslužnim delatnostima, primena Lean koncepta ogleda se u unapređenju brzine i kvaliteta pružanja usluga. Eliminacijom nepotrebnih koraka u procesima, smanjuje se vreme čekanja korisnika, dok se istovremeno povećava nivo zadovoljstva klijenata. Poseban značaj Lean pristup ima u bankarskom i zdravstvenom sektoru, gde efikasnost i tačnost procesa imaju direktan uticaj na korisničko iskustvo.

U oblasti informacionih tehnologija, Lean menadžment se integriše sa Agile i DevOps metodologijama, čime se omogućava brža isporuka softverskih rešenja i kontinuirano unapređenje proizvoda. Ovakav pristup omogućava organizacijama da brže reaguju na promene u zahtevima korisnika i tržišta.

Savremena preduzeća sve češće kombinuju Lean principe sa digitalnim tehnologijama, što dovodi do razvoja koncepta tzv. "Lean digital". Korišćenjem analitike podataka, automatizacije i informacionih sistema, organizacije mogu preciznije identifikovati neefikasnosti i donositi odluke zasnovane na podacima. Ova integracija dodatno povećava efikasnost i omogućava održivi razvoj poslovanja.

Jedna od ključnih prednosti Lean menadžmenta jeste njegova sposobnost da unapredi organizacionu fleksibilnost. U uslovima dinamičnog tržišta, preduzeća moraju biti sposobna da brzo prilagode svoje procese promenama u potražnji. Lean pristup omogućava upravo takvu adaptivnost kroz smanjenje rigidnosti procesa i povećanje njihove protočnosti.

Pored operativnih benefita, Lean menadžment ima značajan uticaj i na organizacionu kulturu. Njegova primena podstiče timski rad, odgovornost zaposlenih i kontinuirano unapređenje, što dugoročno doprinosi jačanju konkurentske pozicije preduzeća.

Ipak, važno je naglasiti da uspešnost primene Lean menadžmenta zavisi od specifičnosti organizacije, uključujući veličinu preduzeća, industriju u kojoj posluje, kao i nivo razvijenosti organizacione kulture. Zbog toga se Lean ne može posmatrati kao univerzalno rešenje, već kao pristup koji zahteva pažljivo prilagođavanje konkretnim uslovima poslovanja.

5. STUDIJE SLUČAJA

Analiza studija slučaja predstavlja važan segment ovog rada, jer omogućava sagledavanje praktične primene Lean menadžmenta u realnim poslovnim sistemima (Milojević, Milanović, 2025). Kroz konkretne primere moguće je uočiti kako teorijski principi funkcionišu u praksi, kao i koji faktori utiču na uspešnost njihove implementacije.

Jedan od najznačajnijih primera primene Lean menadžmenta predstavlja Toyota Production System, koji je postavio temelje savremenog Lean pristupa. Toyota je kroz sistematsku primenu principa kao što su Just-in-Time i Kaizen uspela da značajno unapredi efikasnost proizvodnje, smanji zalihe i poveća kvalitet svojih proizvoda. Ključ uspeha ovog modela leži u dugoročnoj

posvećenosti kontinuiranom unapređenju, kao i u snažnoj organizacionoj kulturi koja podstiče uključivanje zaposlenih u proces donošenja odluka. Ovaj model je vremenom postao referentna tačka za brojne organizacije širom sveta.

Primer kompanije Amazon pokazuje kako se Lean principi mogu uspešno primeniti u logistici i upravljanju lancem snabdevanja. Amazon je kroz optimizaciju procesa skladištenja, automatizaciju i efikasno upravljanje zalihama uspeo da postigne visok nivo brzine i pouzdanosti isporuke. Korišćenjem podataka u realnom vremenu i stalnim unapređenjem operativnih procesa, ova kompanija demonstrira kako Lean koncept može biti prilagođen savremenom digitalnom okruženju.

U sektoru informacionih tehnologija, Lean menadžment se manifestuje kroz Agile i DevOps pristupe, koji naglašavaju fleksibilnost, brzu isporuku i kontinuirano unapređenje softverskih proizvoda. Kompanije koje primenjuju ove metodologije uspevaju da skrate razvojne cikluse i brže odgovore na zahteve korisnika. Lean principi u ovom kontekstu omogućavaju eliminaciju nepotrebnih koraka u razvoju softvera, čime se povećava efikasnost timova i kvalitet krajnjeg proizvoda.

Pored navedenih primera, Lean menadžment se sve više primenjuje i u javnom sektoru, gde doprinosi unapređenju efikasnosti administrativnih procesa. Uvođenjem standardizacije i digitalizacije, institucije mogu smanjiti birokratiju i poboljšati kvalitet usluga koje pružaju građanima.

Analiza ovih studija slučaja ukazuje na to da, iako se Lean menadžment može primeniti u različitim sektorima, njegov uspeh zavisi od sposobnosti organizacije da prilagodi principe sopstvenim specifičnostima. Zajednički faktor u svim uspešnim primerima jeste posvećenost kontinuiranom unapređenju, podrška menadžmenta i aktivno učešće zaposlenih.

ZAKLJUČAK

Na osnovu sprovedene analize može se zaključiti da Lean menadžment predstavlja jedan od najznačajnijih savremenih pristupa unapređenju poslovnih procesa i povećanju konkurentnosti preduzeća. Njegova suština ne ogleda se isključivo u primeni pojedinačnih alata i tehnika, već u sveobuhvatnoj transformaciji načina razmišljanja, upravljanja i organizovanja poslovnih aktivnosti.

Rezultati istraživanja ukazuju da primena Lean principa omogućava organizacijama da identifikuju i eliminišu aktivnosti koje ne doprinose stvaranju vrednosti, čime se postiže racionalnije korišćenje resursa, smanjenje troškova i unapređenje kvaliteta proizvoda i usluga. Poseban značaj Lean pristupa ogleda se u njegovoj sposobnosti da poveća fleksibilnost organizacije i omogući bržu adaptaciju na promene u dinamičnom tržišnom okruženju.

Međutim, uspešna implementacija Lean menadžmenta nije jednostavan niti kratkoročan proces. Ona zahteva snažnu podršku menadžmenta, kontinuiranu edukaciju zaposlenih i razvoj organizacione kulture koja podstiče inovacije, timski rad i stalno unapređenje. U tom smislu, Lean treba posmatrati kao dugoročnu strategiju razvoja, a ne kao skup izolovanih mera za kratkoročno povećanje efikasnosti.

Savremeni trendovi dodatno naglašavaju značaj integracije Lean menadžmenta sa digitalnim tehnologijama. Kombinacija Lean principa i digitalizacije omogućava organizacijama da unaprede procese kroz automatizaciju, analitiku podataka i bolje donošenje odluka. Ovaj pravac razvoja ukazuje na transformaciju Lean

koncepta ka tzv. digitalnom Lean pristupu, koji predstavlja budućnost upravljanja u savremenim preduzećima.

Ipak, važno je naglasiti da primena Lean menadžmenta mora biti prilagođena specifičnostima svake organizacije. Ne postoji univerzalni model implementacije, već je neophodno uzeti u obzir faktore kao što su veličina preduzeća, delatnost, organizaciona struktura i postojeća kultura.

U konačnici, može se zaključiti da Lean menadžment predstavlja snažan instrument za postizanje operativne izvrsnosti i održivog razvoja preduzeća. Njegova pravilna primena ne samo da doprinosi unapređenju poslovnih performansi, već i stvara osnovu za dugoročnu konkurentsku prednost u savremenom poslovnom okruženju.

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POSSIBILITIES OF APPLYING LEAN MANAGEMENT IN CONTEMPORARY ENTERPRISES

Original research paper

Summary

Lean management represents a modern approach to management focused on the elimination of waste (losses), improving efficiency, and the continuous enhancement of business processes. The aim of this paper is to analyze the possibilities of applying Lean principles in contemporary enterprises, with particular emphasis on the benefits, limitations, and factors for successful implementation. The methodological framework includes the analysis of relevant scientific literature, comparative analysis, and case studies. The results indicate that the Lean approach contributes to increased productivity, quality, and customer satisfaction, but its implementation requires organizational transformation, strong leadership, and continuous employee training.

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INTRODUCTION

The contemporary business environment is characterized by intense and dynamic changes resulting from market globalization, accelerated technological development, and increasing competition among enterprises. Organizations today face pressure to simultaneously reduce costs, enhance the quality of products and services, and respond quickly to the evolving demands of customers. Under such conditions, traditional management models are often insufficient to ensure long-term sustainability and competitive advantage.

One of the approaches that has emerged as particularly effective in improving business performance is Lean management. This concept originated within the Japanese automotive industry, primarily through the development of the Toyota Production System, but over time it has evolved into a universal management philosophy applicable in various sectors. The basic idea of the Lean approach is to create maximum value for the customer with minimal use of resources, that is, the elimination of all forms of waste in business processes.

Unlike traditional approaches that often focus on individual functions within an organization, Lean management views the enterprise as an integrated system of interrelated processes. The focus is on the value stream – from the procurement of raw materials to the delivery of the final product or service to the end user. This enables the identification of inefficiencies and bottlenecks in the process, providing a foundation for continuous improvement.

The particular significance of Lean management is reflected in its flexibility and the possibility of application in the contemporary digital economy. Today, Lean principles are increasingly combined with digital tools such as data management systems, process automation and artificial intelligence, thereby further improving business efficiency.

However, despite its numerous advantages, implementing Lean management is not a simple process. It implies a change in the organizational culture, employee mindset, as well as the active involvement of the management in the transformation process. Therefore, it is important to analyze not only the benefits, but also the challenges that follow its application.

The aim of this paper is to examine the possibility of applying Lean management in contemporary enterprises, as well as to identify the key factors influencing the success of its implementation. Through both theoretical and practical approaches, the paper will provide a comprehensive insight into the significance of the Lean philosophy in modern business.

2.THEORETICAL FRAMEWORK OF LEAN MANAGEMENT

Lean management represents a complex theoretical and practical concept that integrates elements of operations management, organizational theory, and quality theory. Its theoretical foundation is not based solely on operational tools, but on a systemic understanding of the organization as a dynamic set of interdependent processes.

In a theoretical sense, Lean management can be viewed from several perspectives: as a management philosophy, as a set of principles, and as an operations system. As a philosophy, Lean

emphasizes customer value and the elimination of waste. As a principled framework, it defines the method of process organization, while as an operations system, it provides concrete tools and methods for implementation.

2.1. Lean as a systematic approach

Lean management is based on the systems theory of the organization, according to which the enterprise is viewed as a whole composed of interconnected elements. A change in one part of the system affects other parts, which is why optimization of individual segments does not guarantee overall efficiency.

In this context, the Lean approach insists on optimizing the entire value stream, rather than individual functions. This overcomes the functional fragmentation that is characteristic of traditional management models.

2.2. Value theory in the Lean concept

One of the key theoretical pillars of Lean management is the concept of value. Value is defined solely from the perspective of the end user, which represents a significant departure from traditional approaches where the organization itself determines what it considers valuable.

In Lean theory, three types of activities are distinguished:

- activities that add value
- activities that do not add value but are necessary
- activities that do not add value and should be eliminated

This classification enables a precise analysis of the process and the identification of areas for improvement.

2.3. Concept of waste (Muda) and efficiency

A central element of Lean theory is the elimination of waste (Muda). This concept is strongly linked to the economic theory of efficiency, as it implies the optimal utilization of resources.

In addition to the classic seven forms of waste (overproduction, waiting, transport, processing, inventory, movements and defects), the modern theory also includes an eighth form – unused human potential.

From a theoretical point of view, the elimination of wastage contributes to the increase of:

- technical efficiency
- allocative efficiency
- dynamic efficiency

2.4. Continuous improvement and organizational learning

Lean management is closely linked to the theory of organizational learning. The Kaizen concept represents a practical application of the idea that organizations should continuously learn and improve their processes.

In this context, Lean encourages:

- learning through practice
- knowledge sharing among employees
- experimentation and innovation

This approach contributes to the creation of a "learning organization", capable of quickly adapting to changes in the environment.

From the perspective of quality management theory, Lean emphasizes the importance of process standardization. Standardization enables the stability of processes and represents the basis for their further improvement.

At the same time, Lean introduces visual control and transparency, which facilitates problem identification and decision-making.

The theoretical framework of Lean management includes both organizational behavior and leadership. Lean culture is based on trust, responsibility and employee involvement.

Leaders in Lean organizations have the role of facilitators, not just decision makers. Their function is to support employees, remove obstacles and encourage continuous improvement.

In modern theory, Lean management is increasingly linked with other concepts, such as:

- Agile management (flexibility and speed)
- Six Sigma (reduction of variations and errors)
- Total Quality Management (TQM)
- Digital transformation

This interdisciplinary connection confirms that Lean is not an isolated concept, but part of a broader theoretical framework of modern management.

3.RESEARCH METHODOLOGY

The methodology of this paper is based on a systematic and theoretically grounded approach to the study of Lean management, with the aim of ensuring a comprehensive understanding of its application in modern enterprises. Starting from the complexity of the Lean management concept itself, the research is directed toward integrating theoretical knowledge with practical examples, in order to enable the observation of this phenomenon from multiple perspectives.

The subject of the research includes the analysis of the possibility of applying Lean management in modern organizations, while the main objective of the paper is to determine the extent to which

Lean principles contribute to the improvement of business performance, as well as to identify the key factors that influence the success of its implementation. In this context, special attention is devoted to understanding the relationship between the theoretical postulates of the Lean concept and their practical application in different sectors.

A combined methodological approach was used in the research process. The descriptive method enabled the definition and explanation of the basic concepts and principles of Lean management, while the analytical method was applied in order to break down complex organizational phenomena into their constituent elements. The comparative approach was used to compare different models of implementation of the Lean concept, as well as to analyze differences in its application among companies from various industries. In addition, the case study method enabled a more detailed examination of specific real-world examples, which further strengthened the empirical dimension of the paper.

The research is primarily based on secondary data sources, including relevant scientific and professional literature, academic papers, as well as publications and reports from organizations that have implemented Lean principles. This approach enables the development of a solid theoretical foundation, and also provides insight into the practical effects of applying Lean management in real business conditions.

The analysis of the collected data was conducted qualitatively, through the interpretation of the views of various authors and the synthesis of results from previous research. The focus of the analysis was on identification of patterns, common characteristics, and key conclusions that recur in the literature, thereby enabling the formulation of relevant and well-founded conclusions.

Although this methodological approach provides significant insights, it is necessary to point out certain limitations of the research. First of all, relying on secondary data sources can affect the level of objectivity, while the absence of primary empirical research, such as surveys or interviews, limits the possibility of directly examining the attitudes of employees and managers. Additionally, there is a possibility of subjective interpretation of the analyzed data.

Despite the aforementioned limitations, the applied methodology enables a comprehensive and relevant overview of the possibility for implementing Lean management, providing a solid foundation for further research in this field.

4. POSSIBILITIES OF IMPLEMENTATION OF LEAN MANAGEMENT

The possibilities for implementation of Lean management in modern enterprises are broad and multidimensional, considering its flexibility and ability to adapt to different organizational structures and industries (Gojkov, 2025). Although Lean was originally developed in the manufacturing sector, contemporary trends indicate its successful application in service industries, information technology, the financial sector, as well as in public administration.

In manufacturing companies, Lean management enables the optimization of production processes through inventory reduction, shorter cycle times, and increased efficiency in resource utilization. By focusing on the value stream, organizations can identify and eliminate activities that do not contribute to the final product, thereby achieving higher productivity and quality.

In service industries, the application of the Lean concept is reflected in the improvement of the speed and quality of service delivery. By eliminating unnecessary steps in processes, customer waiting time is reduced, while the level of customer satisfaction is simultaneously increased. The Lean approach is particularly significant in the banking and healthcare sectors, where process efficiency and accuracy have a direct impact on the customer experience.

In the field of information technology, Lean management integrates with Agile and DevOps methodologies, enabling faster delivery of software solutions and continuous product improvement. This approach allows organizations to respond more quickly to changes in user and market demands.

Modern companies increasingly combine Lean principles with digital technologies, which leads to the development of the concept of so-called "Lean Digital". By using data analytics, automation and information systems, organizations can more accurately identify inefficiencies and make data-driven decisions. This integration further increases efficiency and enables sustainable business development.

One of the key advantages of Lean management is its ability to enhance organizational flexibility. In a dynamic market environment, enterprises must be able to quickly adapt their processes to changes in demand. The Lean approach enables this kind of adaptability by reducing process rigidity and increasing workflow efficiency.

In addition to operational benefits, Lean management has a significant impact on organizational culture. Its implementation fosters teamwork, employee accountability, and continuous improvement, which, in the long term, contributes to strengthening the company's competitive position.

However, it is important to emphasize that the success of Lean management implementation depends on the specific characteristics of the organization, including the size of the enterprise, the industry in which it operates, and the level of development of its organizational culture. Therefore, Lean cannot be regarded as a universal solution, but rather as an approach that requires careful adaptation to the specific business conditions.

5. CASE STUDIES

The analysis of case studies is an important segment of this paper, as it enables examining the practical application of Lean management in real business systems (Milojević, Milanović, 2025). Through concrete examples, it is possible to see how theoretical principles function in practice, as well as which factors influence the success of their implementation.

One of the most significant examples of the application of Lean management is the Toyota Production System, which laid the foundation for the modern Lean approach. Through the systematic implementation of principles such as Just-in-Time and Kaizen, Toyota has significantly improved production efficiency, reduced inventory, and increased the quality of its products. The key to the success of this model lies in a long-term commitment to continuous improvement, as well as a strong organizational culture that encourages employee involvement in decision-making processes. Over time, this model has become a reference point for numerous organizations worldwide.

The example of Amazon shows how Lean principles can be successfully applied in logistics and supply chain management. Through process optimization in warehousing, automation, and efficient inventory management, Amazon has achieved a high level

of speed and reliability in delivery. Using real-time data and continuously improving operational processes, the company demonstrates how the Lean concept can be adapted to a modern digital environment.

In the information technology sector, Lean management is manifested through Agile and DevOps approaches, which emphasize flexibility, rapid delivery, and continuous improvement of software products. Companies that apply these methodologies succeed in shortening development cycles and in responding more quickly to user demands. In this context, Lean principles enable the elimination of unnecessary steps in software development, thereby increasing team efficiency and the quality of the final product.

In addition to these examples, Lean management is increasingly being applied in the public sector, where it contributes to improving the efficiency of administrative processes. By introducing standardization and digitalization, institutions can reduce bureaucracy and enhance the quality of services provided to citizens.

The analysis of these case studies indicates that, although Lean management can be implemented in different sectors, its success depends on the ability of the organization to adapt the principles to its specific circumstances. A common factor in all successful examples is a commitment to continuous improvement, management support, and active employee engagement.

CONCLUSION

Based on the conducted analysis, it can be concluded that Lean management represents one of the most significant contemporary approaches to improving business processes and enhancing the competitiveness of enterprises. Its essence is not only reflected in

the application of individual tools and techniques, but in the comprehensive transformation of the way of thinking, managing, and organizing business activities.

The research results indicate that the application of Lean principles enables organizations to identify and eliminate activities that do not contribute to value creation, thereby achieving more efficient use of resources, cost reduction, and improvement in the quality of products and services. The particular significance of the Lean approach lies in its ability to increase organizational flexibility and enable faster adaptation to changes in a dynamic market environment.

However, successful implementation of Lean management is neither simple nor short-term. It requires strong management support, continuous employee training, and the development of an organizational culture that fosters innovation, teamwork, and continuous improvement. In this sense, Lean should be viewed as a long-term development strategy rather than a set of isolated measures aimed at short-term efficiency gains.

Contemporary trends further emphasize the importance of integrating Lean management with digital technologies. The combination of Lean principles and digitalization enables organizations to improve processes through automation, data analytics, and better decision-making. This development indicates the transformation of the Lean concept toward the so-called Digital Lean approach, which represents the future of management in modern enterprises.

However, it is important to emphasize that the application of Lean management must be adapted to the specific characteristics of each organization. There is no universal implementation model; it is necessary to consider factors such as enterprise size, industry, organizational structure, and existing culture.

Ultimately, it can be concluded that Lean management represents a powerful instrument for achieving operational excellence and sustainable business development. Its proper application not only contributes to the improvement of business performance but also establishes a foundation for long-term competitive advantage in the modern business environment.

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