A Review of Netflix's Adoption of Artificial Intelligence and Impact on Strategic Business Decision Making

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DOI: https://doi.org/10.51584/IJRIAS.2026.11040005

Received: 31 March 2026; Accepted: 05 April 2026; Published: 24 April 2026

ABSTRACT

Many business organizations are quickly leveraging on powerful state-of-the-art Artificial Intelligence (AI) technologies and algorithms to learn from growing amounts of customer data in order to arrive at better business decisions that has the potential to improve services to customers, and by extension, their business operations. This paper x-rays how AI technologies are being utilized to enhance business decision-making processes and strategies. The global streaming giant Netflix was purposively selected for this analysis due to its global recognition as a pioneer in AI-driven personalization, content optimization, and data-driven strategic decision-making. The company provides publicly documented evidence of its AI research and deployment, making it a suitable and information-rich case for examining the relationship between AI technologies and business strategy. This review paper identified some specific AI technologies strategically adopted by Netflix which are providing enhancements in some business areas such as personalized user experiences, recommendation systems, optimized content delivery, streaming quality and optimization, etc. Some of these AI technologies include machine learning, computer vision, natural language processing, and predictive analytics. This paper equally emphasizes the growing ethical concerns in the utilization of AI technologies, especially in modern business operations and decision-making strategies. Some of the challenges reviewed with respect to Netflix AI-based operations include consideration for data privacy, algorithmic bias, and possible job displacement. The submission of this article demonstrate that the integration of AI has significantly improved Netflix's business decision making, positioning it as a leader in the use of AI for business optimization.

Keywords: Netflix, Artificial Intelligence, Machine learning, Business, Decision making.

INTRODUCTION

Focusing on how Artificial Intelligence (AI) is rapidly transforming global business operations and practices and how it is reshaping the corporate world [1], this review paper analyzes the impacts of AI technologies in enhancing strategic business decision making processes. AI is loosely explained as a way of introducing intelligence to machines. AI is the intelligence exhibited by machines which when reviewed should show similar attributes with the natural intelligence exhibited by humans. Also, AI decision-making is the process through which business organizations integrate AI into their operations to help them make decisions quickly, accurately, and consistently [2].

Businesses are rapidly becoming more complex with so many dynamics and this complexity means increased difficulty for management team to comprehend complex business scenario and make strategic business

ISSN No. 2454-6194 | DOI: 10.51584/IJRIAS |Volume XI Issue IV April 2026

decisions. This becomes the juncture where businesses need to turn to the powers of AI technologies for this decision making [2]. The development of AI technologies thus serve as a fundamental theme in explaining how inadequate human intelligence and capacity are to handle significant and intricate decisions in a given circumstance [3]. Ibrahim and Nwobilor [4] stated that AI is a quick and effective method of gathering data with a machine-assisted tool so that ideas, regulations, or resources can be understood very quickly.

The primary aim and purpose of this article is to explore how AI technologies are being leveraged to enhance business decision-making processes and strategies. This article intends to achieve this purpose through a case study of Netflix, in order to demonstrate the role of AI in transforming traditional business operations, driving customer engagement, and optimizing overall performance. The focus will be to understand specific AI technologies used, their impact on decision-making, and the tangible benefits realized by Netflix. Some perceived challenges especially as it pertains to ethical-AI are also x-rayed, as a way of providing a balanced appraisal of Netflix's use of AI for business decision making.

METHODOLOGY

This article adopted a systematic narrative review approach combined with a case-based analytical framework to examine how Artificial Intelligence (AI) technologies influence strategic business decision-making, using Netflix as an illustrative case. The choice of a review methodology is appropriate because the objective of this paper was not to generate primary data but to synthesize existing scholarly works, industry reports, and documented evidence on Netflix's AI-driven practices and their business implications. Also, qualitative review design was employed to critically analyze existing literature on AI adoption in business environments and map these findings to documented practices at Netflix. The article follows the principles of a systematic literature review (SLR) to ensure transparency, replicability, and rigor in the sourcing and selection of materials, while maintaining the flexibility of a narrative review to allow contextual discussion of Netflix as a real-world case study. An initial pool of literature was identified using the keyword search. Titles and abstracts were first screened for relevance to AI in business decision-making and Netflix-related technologies. Full texts of selected articles were then reviewed to determine their suitability for inclusion. Sources that provided empirical evidence, theoretical grounding, or technical explanations of AI systems relevant to Netflix's operations were retained for review and analysis.

Theoretical Framework for AI-Driven Business Decision-Making

To enhance the academic rigor of this review, it is important to ground the analysis of Netflix's AI adoption within established theoretical perspectives on technology-driven decision-making. This study is anchored on three complementary theoretical lenses: the Technology–Organization–Environment (TOE) Framework, the Data-Driven Decision-Making (DDDM) Model, and the Resource-Based View (RBV) of the firm.

The Technology–Organization–Environment (TOE) Framework, proposed by Tornatzky and Fleischer [5], explains how organizations adopt technological innovations based on three contextual factors: technological readiness, organizational capability, and environmental pressures. In the context of Netflix, the technological context is evident in the company's investment in advanced AI tools such as machine learning, computer vision, and natural language processing. The organizational context is reflected in Netflix's data-centric culture, skilled workforce, and research-driven infrastructure, while the environmental context includes intense competition in the streaming industry, which necessitates continuous innovation for survival and growth. The TOE framework therefore provides a structured explanation of why Netflix's adoption of AI is not accidental but strategically influenced by internal and external factors.

Secondly, the Data-Driven Decision-Making (DDDM) model emphasizes the use of data analytics and intelligent systems to guide managerial decisions rather than relying on intuition [6]. Netflix's recommendation engines, predictive analytics for content production, and real-time personalization mechanisms clearly exemplify the practical implementation of this model. Decisions regarding what content to produce, how to present it to users, and how to retain subscribers are all informed by continuous data analysis, aligning strongly with DDDM principles.

ISSN No. 2454-6194 | DOI: 10.51584/IJRIAS |Volume XI Issue IV April 2026

Furthermore, the Resource-Based View (RBV) of the firm provides another important perspective. RBV posits that organizations achieve sustained competitive advantage by leveraging valuable, rare, inimitable, and non-substitutable (VRIN) resources. Also, RBV addresses the competitive business environment that companies encounter, but it takes an inside-out approach, meaning that it begins with an examination of the internal environment of the company [7]. Netflix's vast user data repository, proprietary AI algorithms, and machine learning research capabilities constitute strategic resources that competitors cannot easily replicate. The integration of AI into Netflix's core operations transforms data into a strategic asset that drives superior business performance and decision-making efficiency.

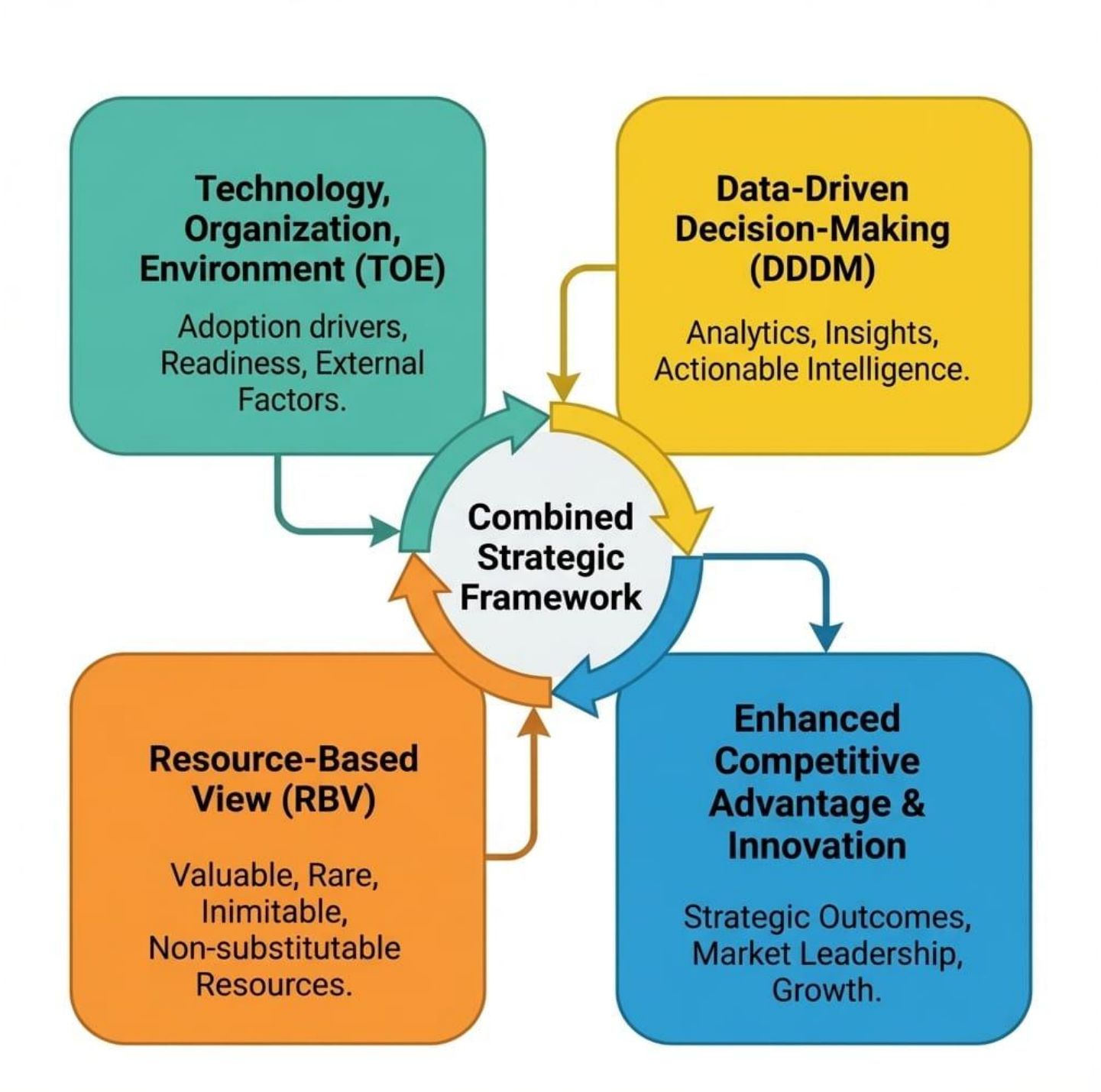

Figure 1: Illustration of combined strategic framework with TOE, DDDM and RBV.

As shown in Figure 1, the combination of TOE, DDDM, and RBV establishes a solid theoretical foundation for understanding how and why AI technologies significantly influence Netflix's strategic business decisions. These frameworks collectively justify the case selection and provide an analytical lens through which Netflix's AI-driven practices can be interpreted beyond mere description.

ISSN No. 2454-6194 | DOI: 10.51584/IJRIAS |Volume XI Issue IV April 2026

Netflix's Use of AI in Decision-Making

Netflix, a leading global streaming service, has revolutionized the entertainment industry by offering a wide range of movies, TV shows, and original content to millions of subscribers worldwide [8]. Netflix is a prominent media platform that offers its subscribers access to a vast library of television shows and movies produced by various creators [9]. Netflix operates in over 190 countries, with each regional branch adapting its strategies to cater to local preferences and cultural nuances.

Khandelwal et al. [8] reported that Netflix attaining the status of being a household name in the entertainment industry is largely attributed to its innovative adoption of AI in its business strategy. Netflix's integration of AI into its decision-making processes is a strategic move aimed at maintaining a competitive edge in a highly dynamic market. Very recently, Li and Duan [9] mentioned that Netflix's business strategy is driven by technology. AI technologies have enabled the streaming company to analyze vast amounts of data generated by user interactions, allowing the company to understand viewer preferences and tailor contents accordingly. The use of AI extends beyond content recommendations to include areas such as content creation, customer support, marketing, and operational efficiency [10].

Netflix employs ML algorithms to develop personalized recommendation engines that suggest content based on users' viewing history, preferences, and behavior. Computer vision is also used to analyze visual content, helping to categorize and tag scenes, characters, and themes accurately. NLP facilitates better interaction with users by improving search capabilities and understanding user feedback, while predictive analytics forecasts user trends, enabling Netflix to make informed decisions about content acquisition and production.

AI Technologies used by Netflix and their Impacts on Decision Making

Imperatively, the utilization of AI technologies in business decision-making processes has emerged as a vital organizational development driver in the modern and dynamic business environment [11]. Equally, Kitsios and Kamariotou [12] emphasized on the sharp tilt by current literature and global businesses towards AI adoption over the last decade, stating that advanced machine learning techniques in particular may have taken center stage in this regard. Artificial Intelligence has therefore, taken an obvious trajectory towards informing what paths businesses should follow to ensure they remain competitive in the increasingly competitive business environments [1]. Hence, one major promise of AI is the provision of advanced, intelligent and reliable tools for businesses to make data-driven and informed decisions through predictive analytics, machine learning and so on [13]. Discussed further are some notable AI technologies that have been adopted by the streaming company in recent time and their impacts on business decision making:

Machine Learning Powered Recommendation System

The idea of **machine learning (ML)** is such that a computer program is able to "learn" by itself without having to be explicitly programmed by a human at every instance [14]. Netflix has made strong strides in leveraging the powers of ML in modern business automation and decision making. Particularly, Netflix claims to have made significant investments in machine learning to offer its services, continuously provide user experience, and conduct analytics [15]. This is evident as it is largely engraved on its website's Machine Learning research module with the inscription **"Learning how to entertain the World"** (See Netflix ML Research link on the reference list). Hence, one of the most well-known and influential applications of AI at Netflix is its "**recommendation system"**. This system is powered by a variety of machine learning algorithms, including collaborative filtering, content-based filtering, and more sophisticated deep learning models. Machine learning models continuously learn from user interactions, adjusting recommendations based on viewing patterns, ratings, and search history. An illustration of such targeted recommendation based on what a user has recently watched, is shown in Figure 2. This recommendation engine analyzes user data such as viewing history, ratings, and behavior to predict what users are likely to watch next [16]. This implies that Netflix can deliver highly targeted recommendations which not only enhances user experience but also increases engagement and viewing time (meaning that viewers are likely to stay longer on the platform), which are critical business metrics.

ISSN No. 2454-6194 | DOI: 10.51584/IJRIAS |Volume XI Issue IV April 2026

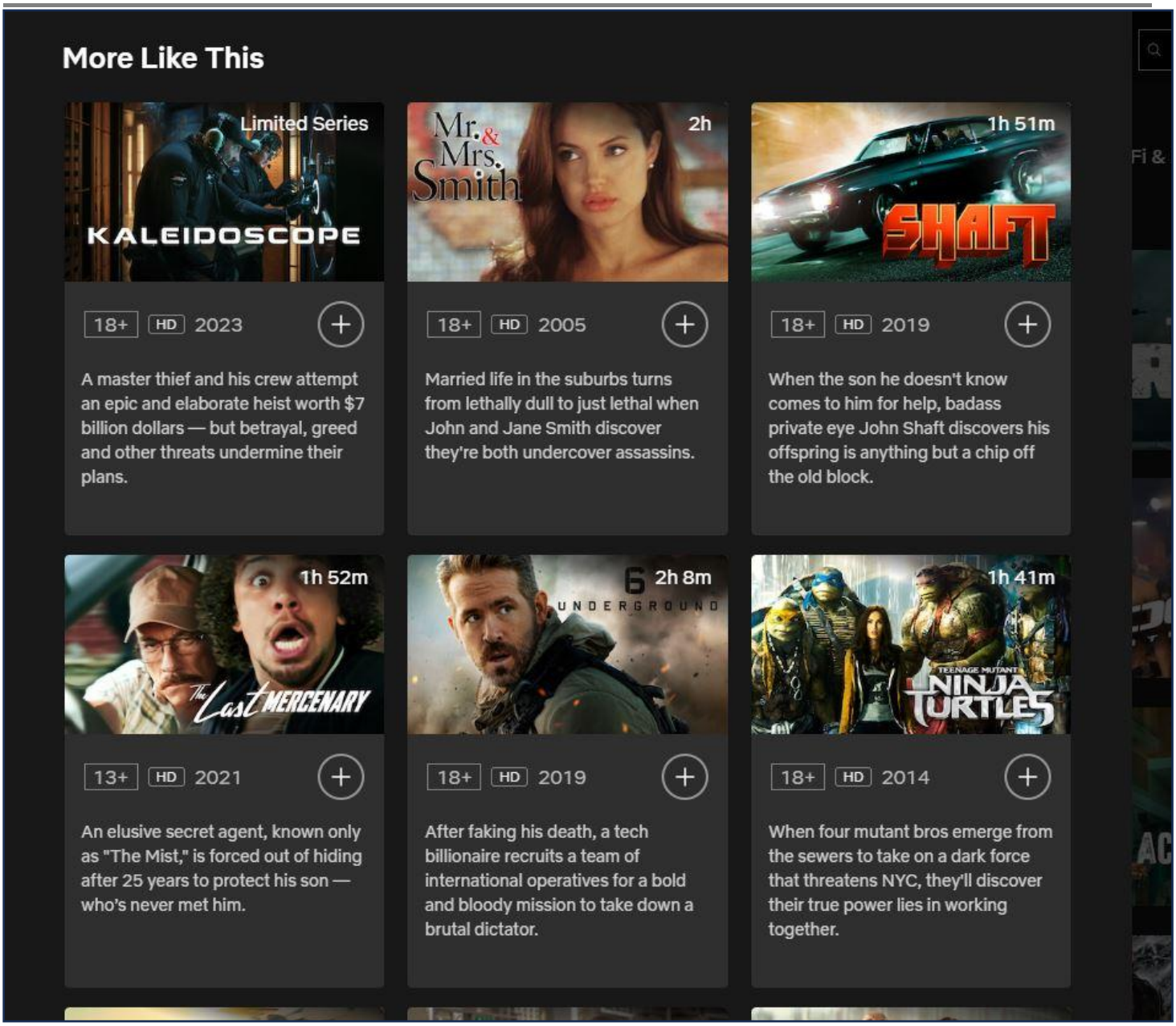

Figure 2: An example of movies recommendations (using “more like this” caption) which is based on user’s recently watched movie often powered by machine learning’s personalized video rating (PVR) algorithm.

It is also important to state that appraisal of Netflix’s Recommender System has not come without some critiques. In particular, [17] had presented a subtle argument in a publication highlighting the gradual acknowledgement by Netflix that human expertise and creativity are also on the fore of the breakthrough of Netflix’s initially acclaimed cutting edge, all-seeing and all-knowing algorithms. This came on the wake of several backlashes on social media faulting the company’s use of customer data and algorithms, as having several ethical implications.

Computer Vision Powered Personalized Thumbnails

Netflix’s use of AI extends to how content is presented visually to its users. AI-driven systems are employed to personalize thumbnail images, which are the first point of interaction a user has with the content. These personalized thumbnails work by the implementation of sophisticated computer vision-based algorithms. Computer vision involves the automated analysis of video content [18]. Netflix’s platform analyzes which thumbnails attract more clicks from different user demographics, and it does so by using computer vision techniques as well as machine learning models.

The AI system dynamically selects the best-suited thumbnail for each user, tailoring the presentation of the same show differently to different viewers. This personalized visual appeal increases the likelihood of users clicking

ISSN No. 2454-6194 | DOI: 10.51584/IJRIAS |Volume XI Issue IV April 2026

on and watching the content, thereby driving up viewership numbers. Wondering why intelligent thumbnail is necessary? The idea is that a streaming service must convince a viewer that a movie is worth seeing. One potent way to approach it is to select a thumbnail that is relevant to the titles. It can be difficult, though, to find a picture that both portrays the important aspects of a title and is approachable [16]. Web-based learning algorithms considers several factors such as the device type being used, the time of day and other days of the week, the nation of origin, the users' favorite languages, and the way users have interacted with a specific title. All these forms sufficient data for Netflix's computer vision models to tailor thumbnails that are catchy and relatable enough to fuel a potential viewer's choice of the show or video. Another practical example is, if a user is interested in watching movies featuring a specific actor or with certain visual themes, computer vision enables Netflix to surface relevant content quickly.

Content Creation, User Engagement and Retention, Guided by Effective Predictive Analytics (PA) and Natural Language Processing (NLP)

Netflix uses predictive analytics tools to evaluate potential new shows or movies before they are produced and it does so by analyzing vast datasets which may include past viewer behavior, genre popularity, and even script elements. [19] recently reported that Netflix makes good use of business intelligence to improve its decisions about marketing strategies by using artificial intelligence and data analytics to analyze user behavior and customize its content offerings and marketing campaigns to match subscriber preferences and boost engagement and retention [13]. Particularly, as part of its strengths, Netflix's AI can predict the success probability of a project in advance. For a practical example, Netflix uses NLP to analyze scripts for key themes and elements that have historically performed well and the insights may help Netflix decide which projects to activate, ensuring a higher probability of success. This predictive capability allows Netflix to align its content creation with viewer preferences, staying ahead of industry trends.

Therefore, PA is a powerful tool used by Netflix to forecast user behavior and trends through rigorous analysis of historical data. PA also aids in identifying potential churn risks, allowing Netflix to implement targeted retention strategies. The implication is that if predictive models indicate that a user is likely to cancel their subscription, Netflix can proactively offer personalized incentives to retain the subscriber, which is a proactive approach that not only improves customer retention but also enhances the overall user experience.

From another angle, the role NLP plays in Netflix's content management and user interaction strategies is evident in the way Netflix processes viewer's search words swiftly, providing responses that aligns with the viewers' interest. NLP is used to enhance the search functionality, allowing users to find content using natural language queries. In this context, the implication is that a viewer might search for "Nigerian movies with a strong female lead," and NLP helps in interpreting this query to provide accurate results for the viewer. Additionally, NLP is employed to analyze user reviews and feedback, extracting sentiments and insights that can inform content strategy and customer support initiatives.

Netflix also harnesses AI to enhance customer engagement and support through the implementation of AI-powered chatbots on their platforms that are primarily dependent on NLP, provide immediate and relevant assistance to user inquiries. These chatbots like most other chatbots can handle common queries about subscription management, content availability, and troubleshooting, offering a swift and efficient customer service experience. Sentiment analysis tools are equally a member of the NLPs and are used on Netflix to analyze feedback from various channels, including social media and customer reviews which also enable Netflix to make informed business decisions.

Streaming Quality and Optimization through ML's Dynamic Optimizer

The quality of videos on Netflix's offering shows its commitment to a seamless user experience and it is heavily reliant on AI for video streaming optimization. AI algorithms help manage and optimize video encoding processes, ensuring that content is delivered in the highest possible quality while minimizing buffering and data usage. The company uses a tool called the Dynamic Optimizer, which employs Machine Learning to adjust video encoding in real time based on network conditions, content type, and device capabilities. Netflix can therefore maintain high-quality streaming experiences across diverse network conditions and device types, ensuring

ISSN No. 2454-6194 | DOI: 10.51584/IJRIAS |Volume XI Issue IV April 2026

consistent user satisfaction. This capability not only improves user experience but also helps reduce operational costs associated with bandwidth consumption.

Impact of AI on Netflix's Decision-Making and Business Strategies

The impacts of AI on Netflix's business operation are obvious. AI technologies have empowered Netflix to base its decisions on data-driven insights rather than intuition or guesswork. This is because Netflix can identify trends and preferences, enabling the company to tailor its content offerings to match viewer interests, all by analyzing user data [10]. This data-driven approach ensures that Netflix invests in content that has a high probability of success. This is very good for business and is in-line with the statement of [1], stressing the unparalleled opportunity for business efficiency brought about by AI.

Equally, one of the key advantages of AI is its ability to provide real-time responses to user interactions, and Netflix's recommendation engine updates in real-time based on user behavior, ensuring that content suggestions are always relevant and engaging. This real-time capability is crucial in maintaining viewer interest and preventing user fatigue. For an example, if a user consistently watches a particular genre, the recommendation algorithm can immediately suggest similar content, keeping the user engaged and satisfied. Also, insights gained from AI analysis have enabled Netflix to refine its business strategies with greater accuracy. The streaming company has achieved this by accurately understanding what content resonates with different audience segments helping the company make informed decisions about content production, marketing campaigns, and user engagement initiatives [9].

Quantitative Evidence of AI Impact at Netflix

A central piece of evidence comes from research quantifying the value of Netflix's personalized recommendation system. Using detailed viewership data, Zielnicki et al. [20] found that Netflix's current recommendation algorithms increase overall user engagement by between 4% and 12% compared to simpler algorithms such as basic matrix factorization or popularity-based recommendation systems. This analysis isolates the value added by algorithmic personalization itself and shows that more sophisticated AI contributes meaningfully to viewer consumption patterns, not just incidental exposure.

Industry and analytic sources also consistently report that the majority of content viewed on Netflix originates from algorithmic recommendations rather than direct search or browsing behaviour. Several business case studies estimate that approximately 80% of viewer hours streamed are attributable to the personalized recommendation engine, highlighting the central role of AI in driving consumption on the platform [21].

The economic significance of this engagement is not trivial: companies in the streaming industry, including Netflix, estimate that personalized recommendations save about US $1 billion annually in customer retention costs due to enhanced engagement and reduced churn [22]. Also, [22] continued by noting that Netflix's AI systems also contribute to reductions in churn, a key performance indicator for subscription services. Although Netflix does not publicly share detailed churn figures, independent industry analyses report that machine-learning-based personalization strategies can shave several percentage points off churn rates by keeping users more consistently engaged with content tailored to their preferences.

In terms of Non-Financial Performance Improvement, the use of AI has significantly improved customer satisfaction for Netflix, as personalized content recommendations, a seamless user interface, and accurate search results contribute to positive viewing experience. When users feel that the platform understands their preferences and provides content that aligns with their tastes, they are more likely to remain loyal subscribers. Thus, high levels of customer satisfaction translate to positive word-of-mouth referrals, further boosting Netflix's subscriber base.

Can a discourse about the potential non-financial impacts of AI on any platform be held without mentioning its aesthetics touch? AI-enhanced features play pivotal role in providing a smooth and enjoyable user experience since personalized interfaces that adapt to individual viewing habits make it easy for users to navigate the platform and discover new content. For Netflix, user experience is an area of its business model that is largely responsible for customer retention and have been equally pointed out by Khandelwal et al. [8]. Similarly, AI

ISSN No. 2454-6194 | DOI: 10.51584/IJRIAS |Volume XI Issue IV April 2026

consistently helps Netflix maintain a diverse and high-quality content library. Netflix can therefore identify content gaps and opportunities for new productions by analyzing viewing trends and audience feedback.

Comparative Analysis

Netflix versus Blockbuster

To further contextualize Netflix's AI-driven strategic advancement, it is useful to contrast it with the decline of Blockbuster, a former leader in the home entertainment industry. Blockbuster's collapse was not solely a consequence of changing consumer behavior, but more significantly a result of its inability to adapt to technological innovation. As noted by Ng [23], the company's leadership maintained a rigid, store-based business model and neglected emerging innovations such as predictive analytics and scalable digital platforms. In contrast, Netflix capitalized on data-driven personalization and algorithmic optimization, which enabled it to align offerings with consumer preferences. Schweidel and Foutz [24] emphasize that Blockbuster's failure to pivot toward digital streaming, despite market signals and available opportunities, reflects the strategic risks associated with technological inertia. This comparison underscores how AI can function not only as a tool for operational efficiency but also as a critical enabler of long-term business sustainability. The contrast between Netflix's AI-driven strategy and Blockbuster's traditional model is further illustrated in Figure 3. While Netflix embraced data and personalization through AI, Blockbuster's resistance to innovation significantly contributed to its decline.

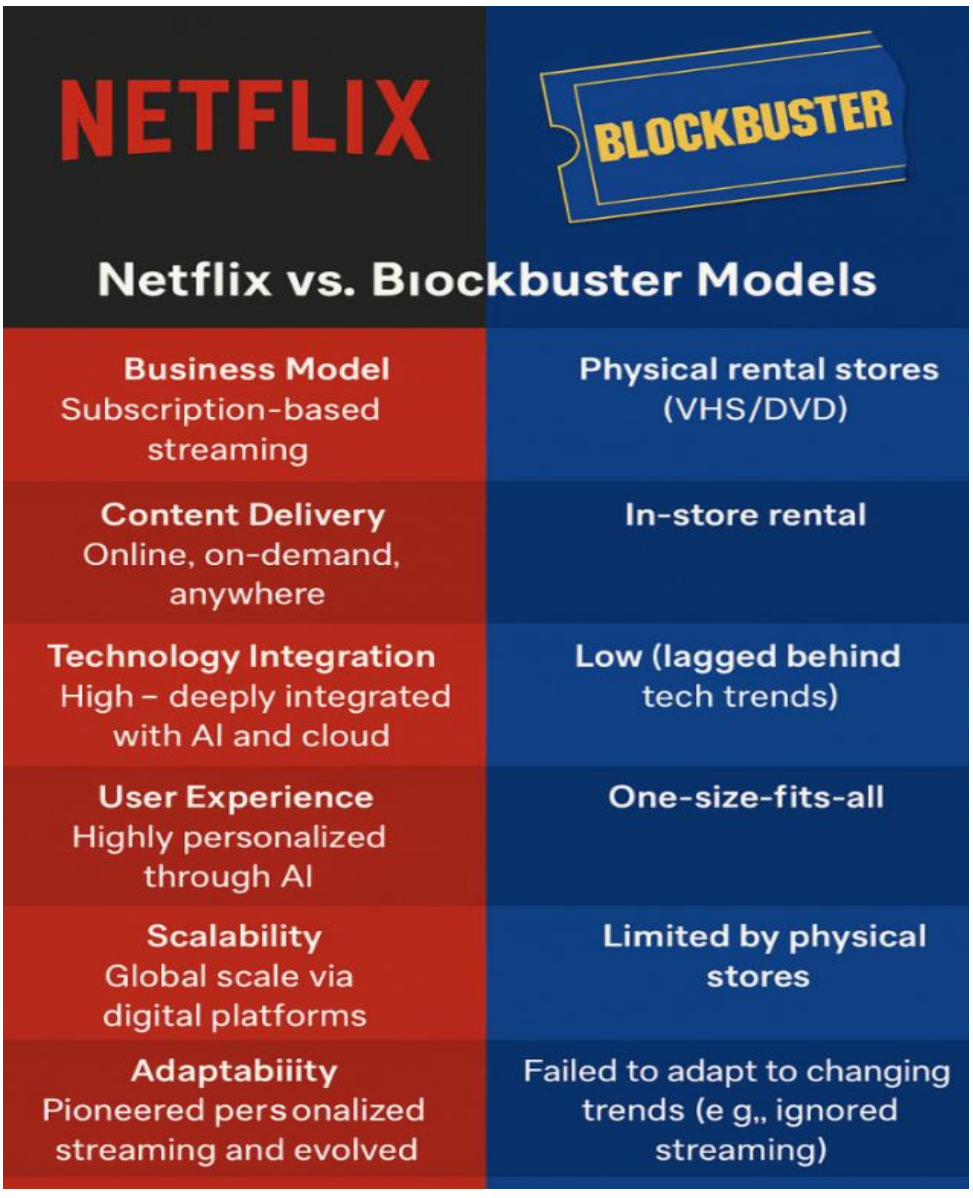

Figure 3: Comparison of Netflix and Blockbuster's Strategic Technology Adoption

ISSN No. 2454-6194 | DOI: 10.51584/IJRIAS |Volume XI Issue IV April 2026

AI Adoption in Other Digital Streaming and Content Platforms

Although Netflix provides a detailed example of AI-driven strategic decision-making, similar AI applications are evident across other digital platforms. Zettabytes of user engagement data are continuously produced by streaming services like Netflix, Amazon Prime, Disney+, and other local providers [25]. These services record each play, pause, seek, and interaction statistic at the millisecond level, and have become increasingly vital in this context and in aiding business decisions in the larger entertainment industry.

Comparative insights demonstrate that AI adoption for personalization and business optimization reflects a broader industry trend and supports generalizability of the findings. For example, Amazon Prime Video, part of Amazon, uses machine learning to personalize recommendations and optimize content discovery. Research on cross-platform recommender systems shows that Amazon Prime Video employs hybrid collaborative filtering techniques, combining user behavior with contextual data to improve the relevance of suggested titles [26]. This aligns with studies indicating that personalized recommendations can increase user engagement and platform revenue [27]. Similarly, YouTube, owned by Google, deploys deep neural networks and reinforcement learning models to generate video recommendations and maximize watch time. Covington, Adams, and Sargin [28] had explained how YouTube's recommendation system processes user history and real-time interaction to tailor content delivery. In the music streaming domain, Spotify applies AI across collaborative filtering, natural language processing, and audio feature analysis to curate personalized playlists [29]. Suggestion from Discover Weekly states that Spotify adoption of AI analytics directly contributes to user retention and listening time [30]. Academic work on AI in music streaming confirms that recommendation quality strongly correlates with user satisfaction and subscription longevity.

While these platforms share common AI-driven practices, Netflix's approach extends beyond personalization into AI-assisted content creation decisions, dynamic encoding optimization for efficient streaming, and real-time A/B testing of user interface elements [20, 27]. This broader scope of AI utilization situates Netflix uniquely in terms of strategic integration, making it a particularly informative case for examining the relationship between AI technologies and business decision-making.

Perceived Challenges in Netflix's AI Implementation and Mitigation Strategies

One of the primary challenges in implementing AI is ensuring data privacy and security. Netflix handles a vast amount of user data, raising concerns about data breaches and unauthorized access. To mitigate these risks, Netflix employs robust encryption methods, access controls, and compliance with data protection regulations. The company also educates users about data privacy practices and provides options for users to manage their data preferences. Algorithmic bias is another potential risk associated with AI systems. If not carefully monitored, recommendation algorithms could reinforce existing biases, leading to a lack of diversity in content recommendations. Netflix addresses this issue by regularly auditing its algorithms and incorporating feedback loops to ensure that recommendations remain balanced and inclusive.

The implementation of AI can also lead to concerns about job displacement, particularly in roles related to content curation and customer service. The notion from a particular user blamed Netflix for the possible replacement of artist(s) with AI in order to produce shows faster. Some other user suggested that while helping the industry, a better help would be to fix the work space as a whole [31]. However, as a mitigation strategy, in most of its dealings, Netflix recognizes the importance of balancing technological advancements with human involvement. While AI handles repetitive and data-intensive tasks, human expertise is still required for creative decision-making, content development, and nuanced customer interactions. Netflix invests in training and upskilling programs to equip employees with the skills needed to work alongside AI technologies, ensuring a collaborative and supportive work environment.

Ethical Analysis of Netflix's AI Practices Using the OECD AI Principles

While the previous discussion highlighted ethical concerns such as data privacy, algorithmic bias, and job displacement, these issues can be more rigorously examined through the lens of the Organisation for Economic Co-operation and Development (OECD) AI Principles, an internationally recognized framework for responsible

ISSN No. 2454-6194 | DOI: 10.51584/IJRIAS |Volume XI Issue IV April 2026

AI governance. The OECD principles outline five value-based guidelines for trustworthy AI: inclusive growth, human-centered values, transparency, robustness, and accountability [32].

Human-centered values and fairness: Netflix's recommendation and personalization systems must ensure that algorithmic outputs do not systematically favor certain genres, cultures, or demographics at the expense of others. The risk of algorithmic bias is particularly relevant in recommendation engines that learn from historical viewing data, which may reflect existing societal or cultural preferences. Regular auditing of recommendation outcomes and the inclusion of diverse content categories help mitigate such risks and align with OECD expectations for fairness and inclusivity.

Transparency and explainability: One challenge with advanced machine learning systems is their "black-box" nature. Users are rarely aware of how or why specific titles are recommended to them. The OECD framework emphasizes that AI systems should be understandable and explainable to users. Netflix partially addresses this through interface cues such as "Because you watched…" explanations, which provide a basic level of algorithmic transparency and user awareness.

Robustness, security, and safety: Netflix handles vast volumes of sensitive user data, making robustness and cybersecurity critical. Encryption practices, secure data storage, and compliance with data protection regulations demonstrate alignment with OECD requirements for technically robust AI systems that protect user information from breaches and misuse.

Accountability: The OECD principles stress that organizations deploying AI must remain accountable for the outcomes of these systems. Netflix's continued investment in human oversight; particularly in content decisions, moderation, and system monitoring indicates that AI-driven decisions are not entirely autonomous but remain subject to managerial and ethical scrutiny.

Inclusive growth and sustainable development: By using AI to improve accessibility features (such as better search, subtitles, and content categorization across languages), Netflix contributes to broader access to digital entertainment across different regions and cultures, supporting inclusive digital participation.

The application of the OECD AI Principles provides a structured and internationally accepted benchmark for evaluating Netflix's AI practices. This framework moves the ethical discussion beyond general concerns and situates the analysis within global standards for responsible AI deployment in business environments.

Future Trends and Scalability of AI for Business Strategy

Looking ahead, two key AI trends are particularly relevant to Netflix's evolving strategy and to broader business applications. First, the rise of generative AI is likely to influence content development processes through automated script analysis, multilingual subtitling, and faster content adaptation for global audiences, enabling more data-informed creative decisions with reduced production time. Second, advances in real-time adaptive personalization powered by reinforcement learning and edge computing may allow platforms to dynamically adjust recommendations, interface layouts, previews, and streaming quality instantly based on user behavior and network conditions. These developments not only represent the next stage of AI maturity at Netflix but also demonstrate how similar AI-driven decision-making approaches can be scaled across industries such as e-commerce, healthcare, and education, where user data can inform strategic operational improvements.

CONCLUSION

Similar to the assertions of some existing literature [1, 3, 9], the integration of AI technologies has profoundly transformed strategic business decision-making processes at Netflix. This review paper has expressed that advanced AI technologies had long been a part of Netflix's business model and at various levels of integration have helped the company improve on its strategic business decisions.

Specifically, machine learning-powered recommendation systems enable Netflix to tailor its offerings to individual preferences, significantly improving user satisfaction and retention. Likewise, computer vision techniques used for personalized thumbnails further enhance user interaction by capturing viewers' attention

with visually appealing and contextually relevant images. Additionally, predictive analytics and NLP provide Netflix with the capability to predict content success, streamline customer support, and make data-driven decisions, thereby maintaining a competitive edge in the streaming industry.

Having stated the above, it is worthy of note that the deployment of AI technologies also brings challenges, particularly in areas concerning ethical considerations, data privacy, and the potential for algorithmic biases. There is also the potential for job displacement which was mentioned by this article. While appreciating the positive impacts of AI to the strategic business decision-making processes of organizations, it is also pertinent to address these inherent issues in order to establish responsible and fair AI usage that aligns with user expectations and regulatory standards. In conclusion, this paper reports that effective implementation of AI has proven to be a game-changer for Netflix, significantly contributing to its ability to remain agile and responsive to the dynamic demands of the entertainment market. Therefore, as AI technologies continue to evolve, they will undoubtedly play an increasingly vital role in shaping the future of strategic business decision-making, not only for Netflix but for businesses worldwide. Also, as Netflix continues to integrate AI into its platform, its ability to support meaningful, adaptive human-computer interaction will remain central to maintaining user engagement and satisfaction.

Disclosure of Conflict of Interest:

The Authors declare that no known conflict of interests exists amongst them.

Funding: This study received no external funding.

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