COMPARATIVE ANALYSIS OF EMERGING AND TRADITIONAL IT BUSINESS MODELS IN A GLOBAL LANDSCAPE

ПОРІВНЯЛЬНИЙ АНАЛІЗ НОВІТНІХ ТА ТРАДИЦІЙНИХ БІЗНЕС-МОДЕЛЕЙ ІТ-КОМПАНІЙ У ГЛОБАЛЬНОМУ КОНТЕКСТІ

This research aims to provide a comprehensive comparative analysis of emerging and traditional IT business models within the global landscape, addressing their scalability, sustainability, and the distinct challenges and opportunities each presents. Emerging IT business models, characterized by innovative technologies and disruptive market strategies, contrast significantly with traditional models, which rely on established technologies and stable market approaches. This study explores how these diverse business models adapt to rapid technological advancements and fluctuating market demands, thereby impacting global economic dynamics. By examining various factors such as activity type, organizational structure, ownership, market scope, technological focus, revenue models, and customer base, this paper categorizes IT companies into emerging and traditional sectors. Emerging sectors, driven by digital transformation and new market creation, offer high growth potential but face challenges in market acceptance and regulatory adaptation. In contrast, traditional IT sectors provide stability and incremental innovation but must continually adapt to prevent obsolescence and maintain competitiveness. The paper utilizes a mix of qualitative research methods to analyze the operational, financial, and strategic dimensions of IT companies. Case studies of leading firms in both sectors highlight the practical implications of different business models and their effectiveness in leveraging technological and market opportunities. This research contributes to the understanding of IT business dynamics, offering insights that could influence policy formulation, investment strategies, and corporate decision-making globally. It underscores the importance of strategic adaptability and proactive innovation management in sustaining business growth and competitiveness in the rapidly evolving IT industry.

Key words: IT companies, business model, software development services, computer hardware, fintech, biotech, artificial intelligence, startups.

Це дослідження має на меті здійснити всебічний порівняльний аналіз новітніх і традиційних бізнес-моделей ІТ-компаній у глобальному контексті, розглядаючи їхню масштабованість, стійкість, а також конкретні виклики та можливості, які кожна з них пропонує. Новітні бізнесмоделі в IT-секторі, які характеризуються інноваційними технологіями та дестабілізуючими ринковими стратегіями, істотно контрастують з традиційними моделями, що базуються на усталених технологіях і стабільних ринкових підходах. Дослідження вивчає, як ці різні бізнес-моделі адаптуються до швидкого технологічного прогресу і змін у ринкових вимогах, впливаючи на глобальну економічну динаміку. В статті розглядаються різні фактори, такі як вид діяльності, організаційна структура, форма власності, масштаб ринку, технологічний фокус, моделі доходів і база клієнтів, на основі чого ІТ-компанії класифікуються на новітні та традиційні сектори. Новітні сектори, що розвиваються завдяки цифровій трансформації та створенню нових ринків, пропонують великий потенціал зростання, але стикаються з проблемами ринкового прийняття та адаптації до регулятивних вимог. У контрасті з ними, традиційні ІТ-сектори забезпечують стабільність і поступове інноваційне оновлення, але мають постійно адаптуватися для запобігання застаріванню та збереження конкурентоспроможності. У дослідженні використовується комбінація якісних методів аналізу для оцінки операційного, фінансового та стратегічного вимірів діяльності ІТ-компаній. Кейс-стадії провідних компаній обох секторів підкреслюють практичне значення різних бізнес-моделей та їхню ефективність у використанні технологічних і ринкових можливостей. Це дослідження сприяє глибшому розумінню динаміки ІТ-бізнесу, пропонуючи інсайти, які можуть вплинути на формування політики, стратегії інвестицій та корпоративне прийняття рішень на глобальному рівні. Воно підкреслює важливість стратегічної адаптивності та проактивного управління інноваціями для підтримання зростання бізнесу і конкурентоспроможності в швидко змінюваній ІТ-індустрії.

Ключові слова: IT компанії, бізнес модель, послуги з розробки програмного забезпечення, комп'ютерні комплектуючі, фінтех, біотех, штучний інтелект, стартали.

Problem Statement. In the ever-evolving landscape of the global economy, Information Technology (IT) companies stand at the forefront of innovation and economic growth [2]. The role of IT companies has transcended mere technological support and has become integral to the operational backbone of industries across various sectors. From enhancing efficiency through automation to pioneering breakthroughs in artificial intelligence, IT companies are pivotal in shaping economic landscapes and societal norms.

The dynamism of IT sector expansion is underpinned by both traditional entities known for their long-standing market presence and emerging companies driving forward with cutting-edge technologies [4]. This state presents a complex and fertile ground for scholarly exploration, particularly in understanding how these distinct business models contribute to and differ in their impact on the global market [3]. As such, the study of IT business models, both emerging and traditional, is not just an academic endeavor but a crucial inquiry that aids

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policymakers, entrepreneurs, and academics in navigating the IT industry's future trajectory.

The divergent trajectories of emerging and traditional IT sectors pose unique challenges and opportunities, both from a business perspective and a regulatory standpoint. Understanding these distinctions and their implications is crucial for effective policy formulation, investment decisionstrategic business making, and planning. Scientifically, this comparative analysis helps in articulating theories of technological adoption and market dynamics. Practically, it informs stakeholders about sustainability, growth prospects, competitive strategies, and potential regulatory needs.

Given the rapid evolution of IT sectors and their significant influence on the global economy, analyzing how different IT business models operate and compete in the global landscape is not only relevant but essential.

Brief outline of the recent research on the topic. The topic of IT companies classification and their business models was outlined in the research of Chernov [2], Rostek and Skala [13], Hizam-Hanafiah & Soomro [4], Makedon [11], Afuah and Afuah [1] and others. Chesbrough and Rosenbloom as well as Magretta look deeper into the question of business model but do not touch in detail IT companies. Overall, the previous research lacks focus on the business models of IT companies especially with distinction of the most recent emerging business models, their advantages and disadvantages compared to traditional companies.

Aim of the article. The aim of this research is to conduct a comparative analysis of emerging and traditional IT business models, exploring their scalability, sustainability, and the distinct challenges and opportunities they present. The study seeks to elucidate how these business models adapt to technological advancements and market demands, and to evaluate the risks and rewards associated with each model.

Main research material. IT companies are the architects of the digital infrastructure that supports the modern economy. Their contributions are manifold; they facilitate global connectivity, enable e-commerce, and fortify cybersecurity measures that protect vital information. Moreover, IT companies are at the helm of big data analytics and cloud computing, technologies that have redefined data accessibility and storage. The critical nature of these services has positioned the IT sector as a cornerstone of economic stability and growth, particularly in a world increasingly reliant on digital solutions.

In the modern economy, IT companies are not just service providers; they are essential partners in innovation across all sectors. They drive advancements in healthcare through biotechnology, improve agricultural outcomes through precision farming technologies, and revolutionize financial services through fintech solutions. Each of these integrations stands testament to the IT sector's role as a catalyst for interdisciplinary innovation and economic diversification [14].

The classification of IT companies involves categorizing these entities based on a variety of operational, structural, and market-driven factors. These classifications help in understanding the diverse landscapes in which these companies operate, facilitating targeted research, policy-making, and investment decisions.

1. Activity Type. Activity type is a primary classification factor that delineates what the company primarily does in the IT ecosystem. This can range from software development, hardware manufacturing, IT consultancy, to newer domains like blockchain technology and artificial intelligence. Each type of activity aligns with specific market needs and technological expertise, influencing the company's strategic direction and competitive dynamics.

2. Organizational Structure. The organizational structure of IT companies plays a crucial role in their operational efficiency and adaptability. Structure types can include flat, hierarchical, matrix, or networked structures, each offering different advantages in terms of speed of decision-making, innovation, and scalability. Companies like Google and Facebook are known for their flat and open structures which encourage innovation, while more traditional firms may have a hierarchical setup to manage large-scale production efficiently.

3. Ownership. Ownership affects a company's governance and strategic choices. IT companies can be publicly traded, privately owned, or governmentowned. Public companies face the pressure of quarterly earnings reports and are typically scrutinized by numerous stakeholders, while private companies may have more leeway to invest in long-term projects without immediate pressures for returns. Ownership influences everything from investment in R&D to the strategic markets they enter [9].

4. Market Scope. The scope of the market that an IT company addresses can classify it into local, regional, or global players. Companies like SAP and Oracle operate on a global scale, offering products and services across multiple continents, leveraging their vast resources to meet a broad spectrum of customer needs across different regulatory environments and cultural landscapes.

5. Technological Focus. Technological focus is especially relevant in the IT industry, where companies may be classified according to the core technologies they develop or deploy, such as cloud computing, IoT, cybersecurity, or data analytics. This classification is particularly dynamic, reflecting the rapid evolution of technology and its applications across different sectors of the economy.

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6. Revenue Model. IT companies can also be classified by their revenue model, which may include licensing fees, subscription services, payper-use models, or advertising-based models. This classification reflects the business strategy and market approach of the company, influencing its sustainability and growth patterns. For example, SaaS companies like Salesforce and Adobe have shifted to subscription models, significantly affecting their revenue streams and market engagement strategies [6].

7. Customer Base. The customer base serves as a classification criterion based on whether a company primarily serves other businesses (B2B), consumers (B2C), or both (B2B2C). This factor influences product development, marketing strategies, and sales processes. B2B companies may have a narrower but deeper market penetration, focusing on customized solutions and long-term contracts, while B2C companies like Apple focus on broad market appeal and brand loyalty.

Table 1 Classification of IT companies based on various factors

Classification Factor	Types
Activity Type	Software Dev
	Hardware
	IT Consultancy
	Blockchain
	AI
Organizational Structure	Flat
	Hierarchical
	Matrix
	Networked
Ownership	Public
	Private
	Government-Owned
Market Scope	Local
	Regional
	Global
Technological Focus	Cloud Computing
	ют
	Cybersecurity
	Data Analytics
Revenue Model	Licensing
	Subscription
	Pay-per-Use
	Ad-Based
Customer Base	B2B
	B2C
	B2B2C
Business model maturity	Traditional
	Emerging

Source: compiled by the author

8. Maturity of business model. Based on this factor we can divide IT companies into traditional and emerging ones. Traditional companies are based on the well established business models like producing and selling hardware and software for a one-time or a regular (mostly yearly fee) with the ability to reliably predict growth. Emerging companies are based on ever evolving business models that are characteristic for companies that appeared in recent years: marketplace fee (Amazon, NFT marketplaces), ad-based models like Meta and Youtube, models focused on data collection and monopoly, like Google or OpenAI.

Within this research paper we propose to focus on differences between traditional and emerging models of IT business based on various factors outlined below.

Technological Focus and Innovation. Emerging IT Companies are focused on innovative technologies. These companies are often involved in developing or leveraging cutting-edge technologies that are not yet fully mainstream, such as artificial intelligence, blockchain, quantum computing, and the Internet of Things (IoT).

Disruptive business models: They are likely to adopt business models that disrupt existing markets and value chains, such as platform-based models, data monetization, and anything-as-a-service (XaaS).

Rapid growth and scalability: Emerging companies are typically characterized by their rapid scalability and growth potential, driven by the novelty and high demand for their innovations.

Traditional IT Companies are focused on established technologies: these firms focus on technologies and services that have a proven market acceptance, such as database management, enterprise resource planning (ERP) systems, and traditional software and hardware solutions.

Stable business models: they generally operate within well-understood and established business models, focusing on product development, incremental improvements, and customer service.

Market maturity: traditional companies usually serve mature markets with slower growth rates and focus on maintaining their position and optimizing their operations.

In terms of market and regulatory environment emerging IT companies focus on dynamic markets: these companies often create or tap into new markets, frequently changing the competitive landscape and continuously evolving their strategies.

Regulatory evolution: as they introduce new technologies, they may face a lack of clear regulatory frameworks, which can be both a challenge and an opportunity to shape industry standards.

In turn, traditional IT companies tend to depend on regulated and structured markets: They operate in markets with established regulatory frameworks, which can provide stability but may also limit flexibility and speed of innovation.

Competitive but stable environment: While competition exists, the rules of engagement are well understood, and major players are well-established, making market entry by new competitors challenging.

Shifting focus towards customer base and product offerings, we can conclude that emerging IT companies try to take the niche to expanding customer base: initially, these companies may serve niche markets but have the potential to expand rapidly as the technology gains broader acceptance.

Innovative and evolving products: their products and services often evolve rapidly in response to technological advancements and feedback from early adopters.

As for the traditional IT companies, they rely on a broad and established customer base: they have a well-established customer base, which expects reliability and consistency in the products and services offered.

Standardized and mature products: products and services are mature, and updates tend to be incremental to ensure stability and compatibility with existing systems.

Lastly, talking about financial structure and investment, emerging IT companies attract venture capital and high level of investment: often reliant on venture capital, these companies burn through cash but can also achieve exponential growth. Their financial strategies are geared towards rapid expansion and capturing market share.

Traditional IT companies focus on steady revenue streams. They often have predictable, steady revenue streams from long-term contracts and a loyal customer base, allowing for more conservative financial planning and investments.

These factors not only distinguish emerging from traditional IT companies but also underscore the varying strategies, challenges, and opportunities each type faces in the technology landscape. This classification is crucial for investors, policymakers, and managers within the IT industry to understand and navigate the complexities of the market effectively.

Focusing on the emerging IT sector we can cover the case study of Stripe in the fintech sector. Stripe is a technology company that builds economic infrastructure for the internet. Businesses of all sizes use Stripe's software and APIs to accept payments, send payouts, and manage their businesses online.

Company's core strategy focuses on simplifying online payment processing. By removing regulatory, technological, and infrastructural complexities, Stripe allows businesses, especially smaller ones, to operate globally with ease.

As Stripe expands, it faces regulatory challenges in different countries. Each region has its own rules regarding online payments, and navigating these can be complex and resource-intensive.

This fintech giant has excelled by maintaining a developer-first approach, ensuring that its solutions are both technically robust and easy to integrate. Continuous innovation, such as adding support for new payment methods and expanding into lending and finance management services, keeps the platform relevant and growing.

In the line of traditional business models we can mention hardware's division of IBM which is one of the world's oldest and largest computer companies. IBM's product line includes computer hardware and software, and it offers infrastructure, hosting, and consulting services in areas ranging from mainframe computers to nanotechnology.

Company's strategy has included shifting focus from hardware to more lucrative software and services, and more recently, to hybrid cloud and artificial intelligence.

At the same time this corporation faces challenges in innovation and competition, especially from newer companies that are more agile and have a cloudnative approach.

IBM has managed to stay relevant by leveraging its strong brand, ongoing investment in R&D, and maintaining a significant patent portfolio that often puts it at the top of the list of companies with the most U.S. patents granted per year.

Further on we propose to focus on sustainability and scalability in IT business models. In particular, talking about emerging IT business models, such as those driving fintech, blockchain, and AI startups, typically emphasize rapid innovation, disruption of traditional markets, and agile responses to consumer demands. These models often capitalize on digital platforms, cloud computing, and big data analytics to offer scalable solutions quickly.

Scalability: emerging models are designed to scale rapidly due to their digital-first nature, which allows for global reach without the proportional increase in physical resources. For example, a SaaS (Software as a Service) company can serve exponentially more customers with minimal additional costs once its software is developed.

Sustainability: these models often focus on continuous improvement and adaptation, which can sustain business growth in rapidly changing technological landscapes. Their sustainability is tied to their ability to remain innovative and responsive to market trends.

At the same time this business model is at risk from the following factors such as market uncertainty: emerging markets can be volatile and unpredictable. Products that are innovative may initially face slow adoption due to market unfamiliarity or regulatory hurdles, as seen with blockchain technology.

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Dependency on continuous innovation: there is a constant need for innovation to stay relevant, which can strain resources and focus.

Scalability challenges: while the business model itself may be scalable, operational aspects such as customer support and infrastructure might not keep up with rapid growth, affecting service quality [10].

By targeting mentioned risks emerginc companies can gather fruits of such advantages as first-mover advantage: capturing and dominating new market niches can be significantly profitable.

High growth potential: If the market responds well, the growth trajectory can be steep and fast, leading to substantial returns on investment. Innovation leadership: Companies that successfully innovate tend to set standards and influence future market directions, establishing strong brand recognition and loyalty.

On the contrary to emerging business mode, traditional IT companies, like those of established software companies, hardware manufacturers, and IT service providers, rely on proven technologies and steady market demand. They focus on incremental innovation, extensive customer service, and deep market penetration.

Scalability: traditional models scale more gradually. Scalability is often achieved through expanding market reach and product diversification rather than technological leaps.



Source: compiled by the author

ЦИФРОВА ЕКОНОМІКА ТА ЕКОНОМІЧНА БЕЗПЕКА

Sustainability: these models are typically more stable and predictable, with long-term customer relationships and steady revenue streams, such as through maintenance contracts or long-term service agreements.

In terms of risks we can distinguish technological obsolescence: rapid technological changes can render traditional products or services obsolete. Companies like IBM and Oracle continually adapt to shifts such as cloud computing to mitigate this risk.

Market saturation: many traditional markets are saturated, making it difficult to achieve high growth rates. This saturation necessitates either market expansion or product diversification to sustain growth.

Inflexibility: larger, established companies often face bureaucratic delays in decision-making, which can hinder responsiveness to market changes.

Traditional business model in IT would not be successful without rewards and advantages, such as market stability: established relationships and contracts provide predictable revenue and stability, shielding companies from the volatility typically seen in emerging markets [3].

Brand strength: a long-standing presence and track record build strong brand equity, which can be leveraged to expand into new markets or segments.

Economies of scale: traditional models can achieve economies of scale, particularly in manufacturing, which can lower costs and increase competitive advantage.

While both models have scalability potential, emerging IT business models are inherently designed for rapid and expansive scalability, primarily due to their low dependency on physical assets and high leverage of digital technologies. In contrast, traditional models may require significant capital investment for scaling, such as setting up new production facilities or service centers.

Emerging models face greater sustainability challenges, largely due to their reliance on continual market and technology validation. Traditional models, with their established markets and slower pace, offer more sustainability but must adapt to prevent technological obsolescence.

In terms of risk and rewards profile, emerging models have high risk but with the potential for high reward, especially if the company can establish itself as a market leader in a new, rapidly growing sector. At the same time traditional models: lower risk with moderate rewards, appealing particularly to stakeholders who value stability and gradual growth.

Conclusions. In conclusion, this comparative analysis of emerging and traditional IT business models within the global landscape has illuminated significant differences in how these models adapt to technological advancements and market demands. The study underscores that while emerging IT business models offer substantial opportunities for rapid growth and innovation, they also face unique challenges, including market acceptance and regulatory compliance. These models are particularly sensitive to shifts in technological paradigms and consumer expectations, which can drastically alter their trajectory and success.

Conversely, traditional IT business models provide a more stable and predictable path, benefiting from established markets and customer loyalty. However, they must continuously evolve to counteract potential obsolescence brought about by newer technologies and changing market dynamics. The stability of traditional models comes at the cost of agility, requiring these companies to invest significantly in innovation to retain market relevance.

The research has shown that both models play vital roles in the IT industry's ecosystem, each catering to different aspects of consumer and business needs. For policymakers, understanding these distinctions is crucial for crafting supportive regulatory frameworks that foster growth and innovation while ensuring market stability. For entrepreneurs and business leaders, this analysis highlights the importance of strategic flexibility and the need to balance between innovative disruption and stable growth.

Ultimately, the future of IT companies will depend on their ability to integrate new technologies and adapt to market changes proactively. This study contributes to a deeper understanding of the IT sector's complex dynamics, providing valuable insights for stakeholders across the global economy to make informed decisions. The ongoing evolution of IT business models is a testament to the sector's vibrancy and its critical role in shaping the future of the global digital landscape.

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