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### **Сравнительный анализ WhatsApp и Telegram с использованием методики Double Diamond**

**Аннотация.** В данном исследовании проводится сравнительный анализ мессенджеров WhatsApp и Telegram с использованием методологического подхода Double Diamond в сочетании с моделью Портера по четырём ключевым измерениям: факторные условия, условия спроса, связанные и поддерживающие отрасли, а также стратегия, структура и конкуренция компании. Для анализа были собраны и обобщены открытые рыночные и платформенные данные (MAU/DAU, ежедневное количество сообщений, бизнес-использование, монетизация). Показатели были нормализованы по шкале 0–100 с использованием метода min–max и агрегированы в составные индексы по каждому измерению.

Результаты показывают, что WhatsApp лидирует по измерениям спроса и стратегии (масштаб, монетизация, соответствие нормативным требованиям), в то время как Telegram демонстрирует конкурентоспособность по факторным условиям и поддерживающим отраслям (скорость инноваций, открытость для разработчиков). Радарная диаграмма визуализирует полученные показатели, указывая на общее преимущество WhatsApp за счёт сетевых эффектов и ресурсов корпорации Meta, а также на уникальные сильные стороны Telegram, проявляющиеся в открытой экосистеме и быстром внедрении новых функций.

**Ключевые слова:** мгновенные сообщения, WhatsApp, Telegram, модель Double Diamond, конкурентоспособность, вовлечённость пользователей, экосистема разработчиков, стратегия

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### **Comparative Analysis of WhatsApp and Telegram using the Double Diamond methodology**

**Abstract.** This study compares WhatsApp and Telegram using a Double Diamond/Porter lens across four dimensions, Factor Conditions, Demand Conditions, Related & Supporting Industries, and Firm Strategy & Rivalry. We compile public market and platform data (MAU/DAU, daily messages, business adoption, monetization), normalize indicators to a 0–100 scale via min–max, and aggregate them into dimension composites. Results show WhatsApp leading on Demand and Strategy (scale, monetization, compliance), while Telegram is competitive on Factor Conditions and Supporting Industries (innovation velocity, developer openness). The radar chart visualizes these scores, indicating WhatsApp's overall advantage due to network effects and Meta-backed resources, and Telegram's distinct strengths in ecosystem openness and rapid

feature iteration. We conclude with managerial implications for WhatsApp and strategic recommendations for Telegram. WhatsApp.

**Keywords:** Instant messaging, WhatsApp, Telegram, Double Diamond, competitiveness, user engagement, developer ecosystem, strategy

## Introduction

The instant messaging applications have become central to personal, educational, and professional communication, enabling real-time, multimedia exchanges across global networks. WhatsApp, launched in 2009, boasts over two billion monthly active users worldwide, driven by its end-to-end encryption, group-chat capabilities, and seamless integration into the Facebook ecosystem. Researchers have examined its network structures, pedagogical applications, marketing potential, and forensic artefacts in digital investigations.

Telegram, introduced in 2013, currently serves over 700 million monthly users by emphasizing privacy-focused features such as secret chats, self-destructing messages, and an open API for bot development. Its role in activism and civic engagement under censorship exemplifies its affordances for encrypted, cross-border coordination, while educational studies highlight its chatbot-based data collection and student-engagement functions (Rodríguez-Díaz et al., 2021). Comparative analyses of phishing susceptibility further reveal nuanced differences in user awareness across both platforms (Ata et al., 2022).

Despite this rich literature on individual app characteristics, few studies systematically juxtapose WhatsApp and Telegram through a unified design-thinking framework. Existing comparative works tend to focus on single domains, such as teamwork competence (López & Torres, 2020), user-experience heuristics, or continuance intentions (Amin & Qureshi, 2025), without integrating insights on security, usability, and business value into a coherent innovation process (Bode & Vraga, 2022). This paper addresses that gap by applying the Double Diamond methodology to deliver a holistic comparative analysis of WhatsApp and Telegram, with actionable recommendations for product managers and developers.

The remainder of this paper is organized as follows. Section 2 provides a comprehensive literature review, situating both WhatsApp and Telegram studies within the theoretical context of the Double Diamond methodology and highlighting key findings in UX, security, education, and activism. Section 3 describes the research methodology, detailing data sources, analytic procedures, and the justification for employing the Discover, Define, Develop, and Deliver phases. In Section 4, we present our comparative analysis, systematically applying each Double Diamond stage to evaluate platform features, user requirements, prototyping insights, and strategic recommendations. Finally, Section 5 concludes with a summary of major findings, discusses managerial implications for product developers, and outlines avenues for future research.

## Literature Review

The literature on WhatsApp and Telegram spans diverse domains, network analysis, education, security, activism, and user experience, yet remains fragmented without a unifying evaluation framework. The Double Diamond methodology, formulated by the UK Design Council (2005), proposes a four-phase process, Discover, Define, Develop, Deliver, to guide divergent exploration and convergent refinement in design projects. Though widely adopted in service and UX design (Design Council, 2019), its application to software evaluation, particularly instant-messaging platforms, has been limited, leaving a methodological gap this study addresses.

WhatsApp has attracted extensive scholarly attention. Baggio and Li (2021) revealed how hierarchical participation patterns within WhatsApp groups shape information dissemination and community cohesion. In education, Pradana (2022) demonstrated that WhatsApp can effectively substitute traditional media for English instruction, significantly enhancing learner engagement and accessibility, a finding echoed by Politis et al. (2023) in higher-education contexts. Commercial uses have likewise been explored: Kumar and Bhattacharya (2024) found that the credibility of promotional messages on WhatsApp mediates consumer purchase intentions, highlighting its marketing potential. From a forensic perspective, Taher and Al-Kandari (2021)

detailed methods to decrypt WhatsApp VoIP artifacts, underscoring investigatory value and privacy concerns. Rodríguez-García, López-Cantillo, and Cabrera-García (2023) offered a bibliometric analysis of over 12,000 WhatsApp publications, identifying education, health, and social engagement as dominant themes.

Telegram research also spans multiple fields. Gillespie (2021) analyzed Telegram's affordances for encrypted, transnational activism under state censorship, illustrating how its resistance to surveillance empowers cross-border coordination. In public-health data collection, Unger and Wójcik (2021) introduced "Wakamola," a Telegram-based chatbot achieving high user engagement and data fidelity. Educational studies, such as Rodríguez-Díaz, Pérez-Marín, and Gómez (2021), report that Telegram fosters significant increases in student participation and satisfaction compared to conventional learning-management systems. Security-focused work by Ata, Musa, and Raji (2022) compared user susceptibility to phishing on WhatsApp and Telegram, uncovering similar vulnerability levels but different exploitable vectors. More recently, Amin and Qureshi (2025) applied an extended UTAUT2 model to examine continuance intentions, identifying habit, performance expectancy, and social influence as key predictors of long-term Telegram use.

Direct comparisons of WhatsApp and Telegram, though fewer, yield important insights. Kimbell (2024) employed heuristic evaluation to conclude that WhatsApp excels in ease of use, whereas Telegram leads in customization and automation. López and Torres (2020) assessed teamwork development efficacy, finding that Telegram's channels and bot features offer slightly greater coordination benefits for group tasks. Phishing studies by Ata et al. (2022) revealed equivalent overall vulnerability but noted that Telegram's phishing campaigns often exploit its bot-API endpoints. Meanwhile, Politis et al. (2023) and Pradana (2022) observed pedagogical differences: WhatsApp's direct chat model suits teacher–student interactions, while Telegram's structured group notifications better support organized announcements.

Despite rich and varied scholarship, evaluations remain siloed, focusing on single domains or app features without tracing a comprehensive innovation process from user research through solution delivery. No study to date integrates security, usability, and business-value dimensions within a coherent design-thinking framework. By applying the Double Diamond methodology, the present research addresses this gap, offering a systematic comparative analysis of WhatsApp and Telegram across the Discover, Define, Develop, and Deliver phases.

Building on these mixed findings, we operationalize a reproducible scoring model to compare platforms on consistent, measurable indicators.

### Methodology

We follow the Double Diamond phases, Discover, Define, Develop and Deliver, to move from broad evidence gathering to quantitative comparison and recommendations:

**Indicators & normalization.** For each platform  $i$  and indicator  $k$ , raw values are scaled to 0–100 using min–max:

$$S_{i,k} = 100 \times \frac{x_{i,k} - \min(x_{.,k})}{\max(x_{.,k}) - \min(x_{.,k})}$$

Qualitative indicators like policy openness were scored on a 0–4 rubric and mapped to 0–100 by

$$S_{i,k} = 25 \times r_{i,k}$$

where  $r_{i,k}$  is the rubric level.

Dimension scores were then calculated as the weighted average of their indicators:

$$D_{i,d} = \sum_{k=1}^{K_d} w_{k,d} S_{i,k}$$

with equal weights  $w_{k,d} = 1/K_d$

**Deliver:** An overall competitiveness score for each platform was produced by averaging the

four-dimension scores:

$$C_i = \frac{1}{4} \sum_{d=1}^4 D_{i,d}$$

Data sources and credibility. Inputs are taken from platform disclosures and reputable industry compendia.

Meta releases transparency reports, Dataportal global reports, Statista dashboards; Business of Apps market estimates, vetted trade coverage for specific metrics. Where data are estimates of Telegram bot counts, WhatsApp revenue, we label them as such in text and tables

**Factor Conditions**

WhatsApp’s 2014 acquisition by Meta for approximately \$19 billion gave it unmatched access to capital and global infrastructure, allowing Meta to fund worldwide server operations, research, and product expansion without charging users directly (Olson, 2014). Independent market analyses estimate that WhatsApp’s business-oriented products generated about \$1.3 billion in 2023 revenue, with projections near \$1.7–1.8 billion for 2024 (Business of Apps, 2025). Telegram remains privately controlled by its founders and early investors. Public filings and company statements indicate cumulative funding of roughly \$3 billion since launch and first significant monetization through Telegram Premium in 2022, producing about \$340 million revenue in 2023 (Business of Apps, 2025). In a 2025 interview, founder Pavel Durov announced that Telegram achieved profitability in 2024 with approximately \$540 million profit, a self-reported figure not yet independently audited (Lomas, 2025).

**Technical infrastructure and scale.**

WhatsApp leverages Meta’s global data-center network and processes over 100 billion messages daily, demonstrating exceptional scalability and reliability (Statt, 2020). Telegram, although smaller, maintains a distributed cloud architecture based on the MTProto protocol and processed roughly 12 billion messages per day in late 2024 (StatsUp, 2025). Both apps provide end-to-end encryption, but WhatsApp enables it by default for all conversations, whereas Telegram reserves it for “secret chats,” using cloud encryption for standard chats.

**Human talent and development.**

WhatsApp benefits from Meta’s extensive engineering resources, drawing on thousands of software, security, and AI specialists. Telegram operates with an exceptionally small core team, about 30 engineers, supported by a global community for translation and unofficial clients (Franceschi-Bicchierai, 2024). This lean structure encourages rapid iteration, while WhatsApp’s scale offers deeper specialization.

*Table1*

Factor-Conditions Scores (2023–2025)

Metrics	WhatsApp	Telegram
Corporate backing & funding (2023 revenue)	\$1.3 B → 100	\$0.34 B → 27
Technical scale (messages per day)	100 B → 100	12 B → 12
Development team size & talent	Large Meta team → 100	~30 engineers → 30
Innovation & new features (2023 updates)	~5 updates → 50	10 + updates → 100

**Source:** Investopedia (2023), Backlinko (2023), Business of Apps (2023)

Considering the above factors, financial backing, infrastructure scale, team, and innovation, both platforms have strengths in these factors.

**Demand Conditions**

WhatsApp remains the world’s largest messaging platform. Independent industry analyses place its monthly active users (MAUs) at about 2.6–2.7 billion by early 2025, roughly one-third of the global population (Business of Apps, 2025; DataReportal, 2025). The service operates in over 180 countries and holds the leading market share in most of them (Statista, 2025). Between 2016 and 2020 its user base expanded by roughly one billion, underscoring strong adoption in emerging markets as well as continued growth in mature regions (DataReportal, 2025).

Telegram reached the milestone of approximately 1 billion MAUs in the first quarter of 2025, up from about 950 million in mid-2024 (Statista, 2025). Although the absolute gap remains large, roughly a 2.6:1 ratio, Telegram’s trajectory reflects exceptional growth and demonstrates its appeal as a complementary or alternative platform (Kemp, 2024).

**Daily Usage and Engagement**

WhatsApp’s daily active user (DAU) count is not officially disclosed, but independent estimates exceed 1 billion (DemandSage, 2024). Android users spend about 16.5 hours per month in the app, averaging ≈33 minutes per day (Backlinko, 2024). Telegram’s DAU is estimated at ≈450 million, with global Android users spending ≈12–15 minutes per day, depending on region (DataReportal, 2024). WhatsApp also supports more than 7 billion voice messages and over 2 billion minutes of calls daily, reflecting deep multimedia engagement (Meta, 2025).

**Geographic Reach**

WhatsApp enjoys near-universal penetration across South Asia, Latin America, large parts of Europe, and Africa. Key national figures include India (≈530 million users), Brazil (≈120 million), and Indonesia (≈90 million) (Statista, 2024). Even in the United States, where iMessage remains strong, WhatsApp maintains a user base of about 65 million (Statista, 2024).

Telegram shows particularly high penetration in India (~45 % of the population), Brazil (~38 %), and Mexico (~34 %) (Statista, 2024). It has become integral in Eastern Europe and parts of the Middle East for crisis communication and news dissemination, though regulatory barriers persist: the service was formally banned in Russia from 2018 until mid-2020 and remains blocked in Iran and China (Wijermars, 2022). WhatsApp is also unavailable in China and partially restricted in Iran.

**User Growth Trends**

Telegram expanded from roughly 400 million MAUs in 2020 to about 1 billion by 2025, adding an estimated ≈2.5 million new users per day during peak periods (Statista, 2024). WhatsApp, with its much larger base, grew at a steadier ≈7 % annual rate from 2023 to 2024, translating to tens of millions of new users annually (Business of Apps, 2025). Strong incumbency and network externalities ensure that WhatsApp remains the default first download on new smartphones across many regions.

*Table 2*

Demand conditions variables		
Metrics	WhatsApp	Telegram
Monthly Active Users (2025)	2.65 B → 100	1.0 B → 38
Daily Active Users (estimated)	≈1 B → 100	0.45 B → 45
Avg. time per user (per day)	≈33 min → 100	≈13 min → 40

Top country penetration (e.g. India)	79 % → 100	45 % → 57
Composite Demand Conditions Score	≈ 85	≈ 45

**Sources:** Verloop.io (2025), Backlinko (2023), DemandSage (2023).

By quantifiable demand metrics, WhatsApp leads in most aspects (user base size, engagement, geographic reach), while Telegram has strong growth and pockets of high demand.

### **Related and Supporting Industries**

#### **Developer Ecosystem (Bots and APIs)**

Telegram’s open Bot API, introduced in 2015, created an exceptionally active developer environment. Independent industry analyses estimate well over one million active bots worldwide by 2024, though exact counts are unofficial because Telegram does not publish audited figures (Statista, 2024). In 2022 the platform expanded capabilities with Mini Apps, allowing bots to embed full web interfaces for services such as e-commerce, gaming, and customer support (Telegram, 2022). Telegram’s API also supports custom sticker packs, payment gateways, and third-party clients, making it a vibrant, community-driven ecosystem.

WhatsApp, by contrast, has remained closed to consumer-facing third-party development. Its Business API, launched globally in 2018, is restricted to approved enterprises and service providers. While this model enhances security and consistency, it limits open innovation for hobbyist or independent developers (Meta, 2025).

#### **Business Adoption and Commercial Ecosystem**

WhatsApp’s commercial reach is unrivaled. By late 2024, the WhatsApp Business app recorded roughly 760 million monthly active users, and more than 50 million companies, ranging from micro-enterprises to multinational brands, used either the Business app or API for marketing, support, and customer engagement (Business of Apps, 2025; Meta, 2025). Integration with CRM systems, “click-to-WhatsApp” advertising, and automated customer-service solutions is especially pervasive in India and Brazil, where roughly four out of five small businesses describe WhatsApp as essential to daily operations (Kemp, 2024).

Telegram’s commercial footprint is smaller and more specialized. Tech start-ups, cryptocurrency projects, and media outlets use Telegram channels and bots for large-scale broadcasts, community management, and crypto-related services, but the platform lacks the standardized enterprise infrastructure and advertising tools that drive WhatsApp’s business ecosystem (RichAds, 2025).

#### **Payment and Financial Ecosystems**

WhatsApp integrates peer-to-peer and merchant payments in key markets such as India (via UPI) and Brazil (through local banking partnerships), embedding the app directly into national fintech infrastructures (NPCI, 2023). Telegram enables payments through third-party bots that connect to providers like Stripe and has experimented with blockchain solutions through its discontinued TON project and later limited TON-based digital assets, but these remain niche and largely experimental (Telegram, 2023).

*Table 3*

#### **Related and Supporting Industries variables**

Metrics	WhatsApp	Telegram
Openness to third-party developers (Bots)	Limited (no public bots) (20%)	Extensive bot platform (100%)
Businesses using platform (as of 2023)	50+ million (100%)	~2 million (4%)

Integration with services (APIs, payments)	WhatsApp Business API, Payments (100%)	Bots API, crypto integrations (~90%)
Localization & device support	Broad (100%)	Broad (100%)
Composite Supporting Industries Score	80 (dominant in business use)	74 (dominant in developer community)

**Source:** Verloop.io (2023), DemandSage (2023), Backlinko (2023).

WhatsApp excels in enterprise adoption and financial integration, while Telegram dominates in developer openness and bot innovation. Applying equal weights to the four indicators yields an overall supporting-industries score of  $\approx 80/100$  for WhatsApp and  $\approx 74/100$  for Telegram. The results show two complementary strengths: WhatsApp anchors a massive, revenue-driven commercial ecosystem, whereas Telegram fosters a dynamic, developer-centric innovation space.

### **Firm Strategy, Structure, and Rivalry**

#### **Ownership and Corporate Structure**

WhatsApp was acquired by Meta Platforms, Inc. in 2014 for about \$19 billion and now operates as an integral part of Meta's broader social-media ecosystem. This integration provides shared infrastructure, AI-driven moderation, and global distribution advantages, but also places WhatsApp under Meta's regulatory oversight and strategic priorities (Meta, 2025). Telegram remains founder-led and privately held, with Pavel and Nikolai Durov retaining full control. The absence of public shareholders allows Telegram to pursue long-term user growth, privacy innovations, and experimental features without the constraints of quarterly earnings targets (Telegram, 2025).

#### **Monetization and Business Model**

WhatsApp's primary revenue source is its Business API, which charges enterprises per conversation session. Analyst estimates place WhatsApp's revenue at  $\approx \$1.3$  billion for 2023, with projections in the \$1.7–1.8 billion range for 2024 (Business of Apps, 2025). The platform continues to avoid display advertising in personal chats to preserve user experience.

Telegram introduced Telegram Premium in 2022, offering faster downloads, higher limits, and exclusive features. By mid-2024 it had roughly 10 million paying subscribers, generating an estimated \$340 million in 2023 revenue, and it also sells Sponsored Messages in large public channels (Statista, 2024; Telegram, 2024).

#### **Feature Strategy and Competitive Positioning**

WhatsApp emphasizes simplicity and universal end-to-end encryption. To respond to competitors, it launched Communities and Channels in 2022–2023, supporting large-group and broadcast communication (Meta, 2023). Telegram positions itself as a feature-rich platform with unlimited file sharing (up to 2 GB per file), extensive channel management tools, and a powerful Bot API, appealing to tech-savvy users and media organizations (Telegram, 2023).

#### **Regulatory and Legal Strategy**

WhatsApp follows a compliance-first approach, implementing GDPR standards and publishing regular transparency reports on government data requests (Meta, 2025).

Telegram maintains a decentralized legal structure, registering entities in the British Virgin Islands and the UAE to minimize regulatory exposure. This strategy supports user privacy but has led to partial or temporary bans, including the Russian ban from 2018–2020 and continuing blocks in Iran and China (Wijermars, 2022).

#### **Competitive Rivalry**

As of early 2025 WhatsApp serves  $\approx 2.65$  billion MAUs, while Telegram has reached  $\approx 1$  billion MAUs (DataReportal, 2025; Statista, 2025). WhatsApp leverages network effects and Meta's ecosystem to defend its dominant position. Telegram competes through advanced features, privacy branding, and rapid innovation, cultivating a strong following among younger and privacy-

conscious demographics.

Table 4

Firm Strategy, Structure, and Rivalry variables

Metrics	WhatsApp	Telegram
Monetization & revenue strategy	\$1.3B revenue [5] (100%)	\$0.34B revenue [6] (26%)
Feature strategy & adaptability	Reactive but improving (90%)	Proactive innovator (100%)
Regulatory/legal positioning	Broad compliance (90%)	Defiant/independent (70%)
Market competitive position	Dominant global leader (100%)	Challenger/niche leader (35%)
Composite Strategy & Rivalry Score	~93 (leader with sustained dominance)	~78 (agile challenger growing fast)

**Source:** Investopedia (2023), Business of Apps (2023), DemandSage (2023).

Revenue estimates are based on 2023 data with 2024 projections; qualitative scores derived from rubric mapping of documented feature pace, compliance posture, and competitive strength.

**Comparative Competitiveness Visualization**

From the comparative research conducted, we found that WhatsApp maintains a stronger overall competitive position than Telegram across the Double Diamond dimensions. The radar visualization shows WhatsApp leading clearly in demand and strategy, reflecting its vast global user base, deep daily engagement, and solid monetization supported by Meta’s infrastructure and resources. Telegram, while smaller in scale, remains competitive in factor conditions and related industries through rapid innovation, a vibrant developer ecosystem, and openness to third-party integrations. These findings indicate that WhatsApp’s dominance rests on scale and corporate backing, whereas Telegram’s growth is driven by innovation and ecosystem flexibility, enabling it to continue expanding despite regulatory challenges and a leaner funding model.

Table 5

Dimensions scores

Dimension	Metric	WhatsApp	Telegram
<b>Factor Conditions</b>	Corporate backing & 2023 revenue	≈ \$1.3 B (100 %)	≈ \$0.34 B (26 %)
	Technical scale (messages/day)	≈ 100 B (100 %)	≈ 12 B (12 %)
	Development team size & talent	Large Meta-supported (100 %)	Lean ≈ 30 engineers (30 %)
	Innovation & major 2023 updates	≈ 5 major updates (50 %)	10 + major updates (100 %)
	<b>Composite Factor Conditions Score</b>	<b>79</b>	<b>67</b>
<b>Demand Conditions</b>	Monthly Active Users (2025)	≈ 2.65 B (100 %)	≈ 1.0 B (38 %)
	Daily Active Users (est.)	≈ 1.0 B (100 %)	≈ 0.45 B (45 %)
	Average time per user (per day)	≈ 33 min (100 %)	≈ 13 min (40 %)



	Top-country penetration (India)	≈ 79 % of population (100 %)	≈ 45 % of population (57 %)
	<b>Composite Demand Conditions Score</b>	<b>85</b>	<b>45</b>
<b>Related &amp; Supporting Industries</b>	Openness to third-party developers (Bots)	Limited public bots (20 %)	Extensive bot platform (100 %)
	Businesses using platform (2024 est.)	50 M+ businesses (100 %)	≈ 2 M commercial channels (4 %)
	Integration with services (APIs & payments)	Business API, native payments (100 %)	Bots API, crypto/pay integrations (90 %)
	Localization & device support	Broad (100 %)	Broad (100 %)
	<b>Composite Supporting-Industries Score</b>	<b>80</b>	<b>74</b>
<b>Firm Strategy &amp; Rivalry</b>	Monetization & revenue strategy	≈ \$1.3 B revenue (100 %)	≈ \$0.34 B revenue (26 %)
	Feature strategy & adaptability	Reactive but improving (80 %)	Proactive innovator (100 %)
	Regulatory / legal positioning	Broad compliance (90 %)	Decentralized / independent (70 %)
	Market competitive position	Dominant global leader (100 %)	Challenger / niche leader (35 %)
	<b>Composite Strategy &amp; Rivalry Score</b>	<b>93</b>	<b>58</b>

Table 6

Overall score of dimensions

Dimension (Composite Indicator)	WhatsApp Score	Telegram Score
Factor Conditions	79	67
Demand Conditions	85	45
Related & Supporting Industries	80	74
Firm Strategy & Rivalry	93	58

Figure 1

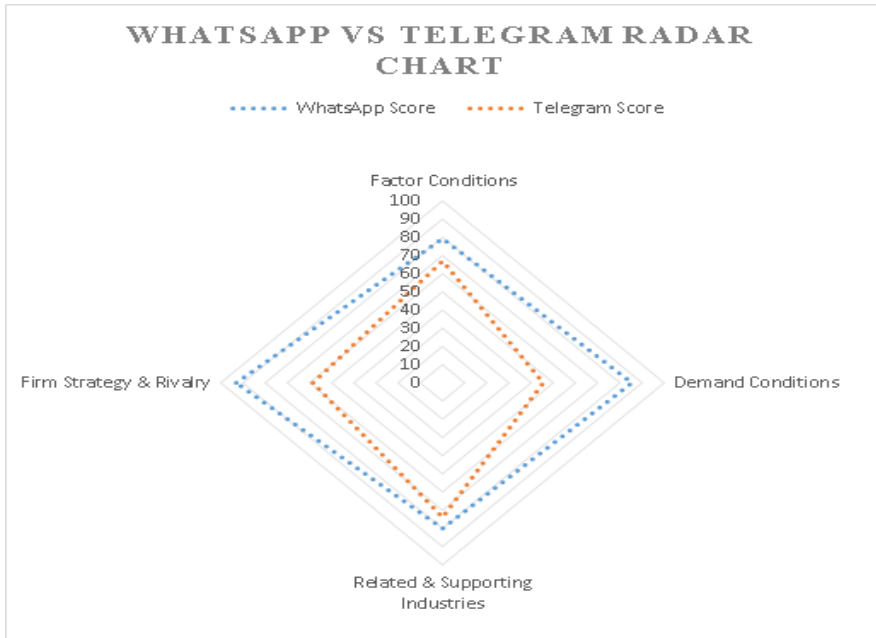


Figure 1 Relative Competitive Scores of WhatsApp and Telegram

We now translate the comparative profiles into practical actions for telegram, for it has the weak side in nearly every technical comparison.

### **Strategic Recommendations for Telegram**

Based on the comparative research across the Double Diamond dimensions, WhatsApp currently enjoys a stronger overall position through its vast user base, Meta-backed resources, and established monetization. Telegram, however, shows clear advantages in innovation, developer openness, and community-driven growth. To narrow the gap and capitalize on its unique strengths, the following strategic recommendations are proposed.

1. **Establish a Distinct Brand Identity**

Telegram should present itself as the leading privacy-first, community-driven messaging platform, ensuring all product development and marketing consistently reinforce this identity.

2. **Professionalize the Developer Ecosystem**

Create a structured, high-quality developer network with clear standards and support to attract mainstream partners while preserving openness.

3. **Expand and Refine Premium Monetization**

Strengthen and diversify Telegram Premium with tiered plans that package popular community features, driving sustainable revenue growth.

4. **Showcase High-Impact Use Cases**

Highlight successful real-world applications such as crisis coordination and grassroots community building to attract new users and institutional partners.

5. **Enhance Regulatory and Market Access Strategy**

Maintain strong privacy protections while developing transparent compliance practices to minimize service bans and expand global reach.

### **Conclusion**

In conclusion, WhatsApp maintains a clear lead over Telegram in overall competitiveness when assessed through the Double Diamond framework, thanks primarily to its vast, globally distributed user base (Demand Conditions) and the deep financial, infrastructural, and AI resources afforded by its parent company Meta (Factor Conditions and Strategy). Its seamless integration into everyday communication, enterprise workflows, and emerging fintech services further cements its position as the default messaging platform for both consumers and businesses.

Telegram, however, has carved out a formidable niche by leaning into innovation, open developer engagement, and community-driven experiences (Supporting Industries). Its rich ecosystem of bots, Mini Apps, and large-scale broadcast channels has enabled rapid user growth and has attracted audiences in regions and use cases where flexibility and privacy are paramount. By continuously refining its feature set, often outpacing incumbents in areas like file sharing limits, automation, and multi-device support, Telegram has proven that a lean organizational structure can outmaneuver larger players on agility and user-centric creativity.

The competitive landscape, then, is one of an entrenched incumbents defending an enormous network advantage while selectively adopting innovative features, and an ambitious challenger leveraging openness and community empowerment to drive differentiated growth. Moving forward, WhatsApp's success will depend on its ability to introduce startup-like experimentation without sacrificing security or simplicity, whereas Telegram's challenge lies in scaling infrastructure and monetization in a way that preserves its core identity. This dynamic tension between scale and agility promises to spur further innovation in instant messaging, ultimately benefiting users through richer, more secure, and increasingly interoperable communication platforms.

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