MASTER'S DEGREE PROGRAMME IN BUSINESS ADMINISTRATION

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Dissertation

"Conversational AI as a Strategic Business Asset: Economic, Financial, and Organizational Impacts of Messaging Automation in Customer-Centric Enterprises"

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Supervisor: Professor John Marangos

June 2026

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I would like to thank my supervisor and all those who contributed to the completion of this thesis.

Abstract

This dissertation examines conversational artificial intelligence and messaging automation as strategic business assets in contemporary digital environments. The aim is to explore the conversational AI adoption's economic, financial, and organizational implications. Emphasis was also placed on enterprise messaging platforms, with characteristic examples such as Viber, WhatsApp, and Short Message Service (SMS). Methodologically, a convergent mixed-methods research design had been adopted. The quantitative component was based on real-world business campaign datasets. The datasets had been derived from enterprise messaging implementations across different sectors. For instance, they included retail, healthcare, and financial services. The qualitative component consisted of semi-structured interviews. The interviews had been conducted with senior industry specialists in enterprise messaging, strategic management, and cybersecurity. As for the empirical findings, they showed that conversational AI improves customer engagement. It also increases communication scalability and operational responsiveness. In addition, it reduces customer acquisition costs and increases Return On Investment (ROI). Furthermore, it was shown that messaging automation contributes to organizational transformation. It is specifically achieved through workforce adaptation and cross-functional collaboration, while implementing a decision-making strategy that is mostly data-driven. In conclusion, conversational AI is a multidimensional strategic capability and supports digital competitiveness. It promotes customer-centric innovation and leads to long-term organizational value creation. For reasons of personal data protection and compliance with the General Data Protection Regulation (GDPR), the companies and business data that were presented in the current dissertation are referenced anonymously. More detailed information and primary research material may be made available upon request and under conditions of confidentiality.

Keywords

Conversational Artificial Intelligence; Messaging Automation; Customer Engagement; Digital Transformation.

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Chapter 1: Introduction

Conversational Artificial Intelligence (AI) and messaging automation, in recent years, have become the central pillars of digital transformation in the enterprises that are characterized as customer-centric. While the organizations operate in highly competitive and digitally mediated environments, there is a higher need for efficient, scalable, and personalized customer interaction. Therefore, this need has become a logical-strategic priority. In this context, messaging platforms, such as Viber, SMS, WhatsApp, and email, are no longer used merely as communication channels. Additionally, they are evolving into integrated digital interfaces that facilitate a wide range of business processes, from customer service and marketing to transactions and post-sale engagement (Huang & Rust, 2021, p.45-46; McTear, 2022, p.12-13).

The conversational AI's rapid adoption is linked to broader technological developments that also include advances in Natural Language Processing (NLP) and large language models. These technologies make systems able to interpret user intent and generate context-aware responses. They also offer them the ability to support interactive and real-time communication at scale (Jurafsky & Martin, 2023, p.26; Brown et al., 2020). A direct result is the fact that conversational interfaces can simulate human-like dialogue. Thereby, they are transforming the way organizations interact with their customers. It is about a transformation that is significant in an era where immediacy and personalization are the main determinants of customer satisfaction and loyalty (Lemon & Verhoef, 2016, p.95).

Also, messaging automation plays a significant role in simplifying customer interactions. Traditionally, customers were required go through many different digital touchpoints, such as websites or call centers, to complete even simple tasks. On the other hand, conversational interfaces offer users the opportunity to perform these actions in a single communication environment. For example, customers can make purchases, book services, receive the support that they need, or track their orders directly through messaging applications. This means that there is no need for customers to switch platforms or to repeat information (Huang & Rust, 2021, p.45; McTear, 2022, p.12-13).

Examining the same issue from a business perspective, the messaging automation's adoption offers significant operational and financial advantages. For instance, an immediate

benefit is the reduction of operational costs. This happens through the automation of high-volume and routine interactions. Conversational agents can handle many customer inquiries. In fact, this makes organizations able to scale their customer service operations without needing to proceed to proportional increases in their human resources (Davenport & Ronanki, 2018, p. 108).

In addition to cost efficiency, conversational AI contributes to revenue generation. It improves customer engagement and conversion rates. For example, personalized messaging enabled by data-driven segmentation and real-time analytics, makes organizations capable of delivering targeted offers to their customers (Firmansyah et al., 2024, p. 12-13). This increases the likelihood of purchase decisions. At the same time, it might increase and improve the Customer Lifetime Value (CLV). Furthermore, the messaging platforms' integration with Customer Relationship Management (CRM) systems enables organizations to continue their context-aware communication with their audience across the overall customer lifecycle (Huang & Rust, 2021, p.46-47).

One equally important dimension of conversational AI is the impact that it has on the structure of the customer journey. Customer interaction's traditional linear models are being replaced by processes in which customers engage with businesses in real time. This engagement is achieved through conversational interfaces. This leads to reducing uncertainty and making it easier for customers to make decisions (Lemon & Verhoef, 2016, p.96). As a result, organizations can create more intuitive and user-friendly experiences. These experiences, in turn, lead to customer satisfaction and loyalty's higher levels.

Despite the above-mentioned advantages, the conversational AI's adoption raises on the one hand strategic and on the other hand organizational challenges. The integration of conversational technologies in the already existing business processes is a main challenge. In more detail, successful implementation needs the existence of technological capabilities. It also requires organizational alignment. This includes cross-functional collaboration between departments. Characteristic example is the collaboration between the departments of marketing, Information Technology (IT), customer service, and data analytics (Raisch & Krakowski, 2021, p.192). Furthermore, issues about trust and data privacy play an important role in the acceptance of conversational systems by customers. Customers may be hesitant to interact with automated agents. This might happen when sensitive information is involved. It might also happen in cases in which customers are not aware that they are communicating with an AI system (Luo et al., 2019, p.937).

Critically evaluating the above analysis, a research problem that is observed is how conversational AI transitions from an operational tool that is used for basic automation to a business asset that plays a significant role in efficiency and customers' experience. On the one hand, the already existing literature has examined the conversational AI's technological capabilities. However, there is a need for research which connects its economic and organizational impacts.

On the other hand, the current dissertation seeks to address this research gap. It aims to achieve this through the examination of conversational AI as a strategic enabler of business performance. This study focuses on the economic implications of messaging automation. It also focuses on its organizational and strategic dimensions. It uses a quantitative analysis of real business cases. It combines this with qualitative information from two experts. The current research aims to help the understanding of how conversational AI affects value creation at many different levels.

This dissertation investigates how messaging platforms can be used to increase operational efficiency. It also investigates how they can be used to improve customer engagement. Additionally, it explores the way through which organizations measure the Return on Investment (ROI) of conversational AI. It then analyzes how these technologies influence competitive dynamics. Furthermore, it analyzes how they affect market positioning.

The study focuses on the examination of the organizational changes that are required for successful adoption. The significance of this study lies in its ability to cover an existing gap between practice and theory. This might be achieved by the combination of academic information with empirical data. Therefore, this research might offer information on the one hand for scholars, and on the other hand for practitioners. As for the managers and business leaders, the findings of this dissertation might offer guidance on how to effectively adopt solutions that are based on conversational AI.

The next chapter presents the literature review. It creates the theoretical basis for this dissertation. It begins with an overview of the evolution of conversational artificial intelligence and messaging technologies. This is followed by an examination of strategic management perspectives, which explains how conversational artificial intelligence can act as a source of competitive advantage. The chapter then discusses the financial and organizational implications of messaging automation. At this point, the implications for business performance, customer engagement, human resources transformation, and value

creation are highlighted. Finally, the chapter identifies the main research gaps in the literature. Finally, the rationale for the empirical research that follows is created.

Chapter 2: Literature Review

2.1 Evolution of Conversational AI and Messaging Technologies

The evolution of artificial intelligence and messaging technologies reflects the broader path of digital transformation within customer-centric business units. On the one hand, personalization and on the other hand, efficiency have become the main strategic priorities of businesses (Aisha & Jamei, 2025, p. 16). As for the first forms of automated communication, they are found in rule-based systems. As mentioned by Aggarwal & Singh (2024, p. 85), these are computer programs that generate responses according to predefined rules and scenarios, but Shawar & Atwell (2007, p.29-30) stated that they are also based on a predetermined decision logic, and not so much through learning or understanding natural language.

These systems were typically implemented through decision trees developed in customer service environments in the late 1990s and early 2000s. They relied on predefined keyword matching mechanisms. These systems also relied on predefined scenarios. Then, they were able to identify user requests. They were also able to offer standardized responses. They represented an important step towards communication automation. However, they were characterized by reduced levels of flexibility. Additionally, they sometimes failed to optimize the users' experience (Aggarwal & Singh, 2024, p. 86-87; Shawar & Atwell, 2007, p.29-30).

Schöbel et al. (2024, p.729), Aggarwal & Singh (2024, p. 85), and Aisha & Jamei (2025, p. 1) agree that despite their limitations, these systems were the first attempt to automate large-scale customer interaction. Especially Schöbel et al. (2024, p.729) added that these systems also reduce the operational costs in the industries that are service-intensive. The subsequent development of Natural Language Processing (NLP) techniques expanded the conversational system's functional capabilities. The statistical NLP models and the machine learning approaches made chatbots able to move beyond deterministic logic. They allowed probabilistic interpretation of user intent and more adaptive responses (Jurafsky & Martin, 2023, p.26-27). This is a shift that has contributed to the adoption of digital messaging channels. Characteristic examples of these channels are Short Message Service (SMS) and emails. In these channels, later Over-The-Top (OTT) platforms were

included. Indicative examples are WhatsApp, Viber, and Facebook Messenger. Overall, Meyer et al. (2020, p.87) and Jurafsky & Martin (2023, p.26-27) agree that the messaging-based interaction offered enterprises a low-friction and asynchronous communication channel. Additionally, Meyer et al. (2020, p.87) mentioned that this channel is aligned with the evolving preferences of the customers, for immediacy and convenience. In the evolution of conversational AI's context, with the rise of deep learning emerged. Furthermore, this evolution has appeared more recently with the Large Language Models (LLMs). Studies that have been conducted by Vaswani et al. (2017, p.5998) and Brown et al. (2020, p. 1877) noted that the transformer-based architecture enabled substantial improvements in language understanding and contextual awareness. Vaswani et al. (2017, p.5998) mentioned that transformer-based architecture also enables improvement in generative response quality. Brown et al. (2020, p. 1877-1878), agreeing with this claim, added that it also allowed conversational agents to simulate dialogues that are, on the one hand, more natural and on the other hand more coherent.

According to the studies of McTear (2022, p.12) and Chauhan et al. (2024, p.385), the aforementioned advances transformed chatbots. They were narrowly scoped automation tools. Then, they begun being multifunctional conversational agents. McTear, 2022 (p.12-13) stated that these agents could handle complex customer journeys. From a managerial perspective, the above-described technological maturation expanded the strategic relevance of conversational AI. Chauhan et al. (2024, p.385) supported that it positioned it as a scalable interface that exists between the firms and their customers. This means that conversational AI stopped being a back-office efficiency tool.

Parallel to technological progress, conversational AI's business adoption accelerated across different industries. For instance, it accelerated through retail, banking, telecommunications, travel, and healthcare. At that point, the studies by Gnewuch et al. (2017, p.1) and Adam et al. (2021, p. 427) showed that business entities increasingly deploy conversational agents to address rising customer expectations for 24 hours per day and seven days per week availability. These conversational agents also offered rapid response times and personalized interaction with the firm's customers. At the same time, they had been able to simultaneously manage the pre-existing cost pressures and the constraints that concerned human resources (Lai & Lee, 2024, p.1). Even more, Lai & Lee (2024, p.1) and George et al. (2023, p.13) agree on the fact that the messaging automation enables business entities to handle high volumes of routine inquiries at marginal costs close to zero. They also enable

to free human agents to focus on higher-value and judgment-intensive tasks. George et al. (2023, p.33) present it as a hybrid interaction model that is in line with a service-dominant logic. In the context of this logic, value is co-created through efficient and responsive interaction. This means that it is not created through one-directional service delivery.

After a critical evaluation of this subject, it is mentioned that the integration of conversational AI into omnichannel communication strategies has increased its adoption. The modern conversational systems have stopped operating isolated. They are integrated into the Customer Relationship Management (CRM) platforms and data analytics. This integration allows conversational AI to process customer data for personalization and for customer behavior's prediction. This improves customer experience. Additionally, it increases operational performance (Huang & Rust, 2021, p.30).

Nevertheless, the evolution of conversational AI raises managerial challenges that have organizational impact. These challenges unavoidably influence the consequences of conversational AI's adoption. For instance, the study of Luo et al. (2019, p.937) mentions issues about trust and transparency. Suri (2022, p.31) noted that these issues are also related to user acceptance. This happens to an even greater extent when customers are not aware that they are interacting with automated agents. It additionally happens when conversational failures start to appear. Furthermore, excessive automation carries the risk of degrading service quality, in the event that conversational systems are developed without sufficient alignment with customer needs. The same risk exists if there are no clear guidelines for the handling of specific processes by human agents. As a result, the adoption of conversational AI depends on the one hand, on technological sophistication and, on the other hand, on strategic design choices and on the evaluation of continuous performance (Suri, 2022, p. 31-32).

2.2 Strategic Management Perspectives

At first, from the resource-based view, competitive advantage arises from resources that are valuable and at the same time rare, imperfectly imitable, and non-substitutable (Barney, 1991, p. 99). Conversational AI systems might meet several of these criteria, as it is noted by the recent studies of Keding (2021, p.91) and Mikalef et al. (2019, p.272). However, Keding (2021, p.91) pointed out that this might happen in the case of which they are embedded within firm-specific processes and data infrastructures. According to Mikalef et al. (2019, p. 272), accepting that Artificial Intelligence technologies are becoming more

common and more easily accessible, it must be understood that strategic value also comes from their integration with personal data. Similarly, it must be accepted that strategic value also comes from the integration of these technologies with organizational routines. Mikalef et al. (2019, p.272)'s research suggests that companies that can combine AI-driven communication with deep customer insights and with process redesign finally achieve positive performance outcomes. This does not happen in the case of the companies that adopt AI in a more fragmented manner, as also mentioned by the previous study of Mikalef et al. (2018, p.547).

Even more, the strategic relevance of conversational AI is further increased by the capabilities' perspective. Teece (2007, p.1320) and Shah & Kavathiya (2024, p.511) stated that this perspective emphasizes a firm's ability to sense opportunities and to seize them through appropriate investments. It also reconfigures resources in response to environmental change. Even more, Borah et al. (2024, p. 3531) and Dhawas et al. (2024, p.66) stated that messaging automation enhances the capabilities of sensing. It does so by generating real-time data on customer preferences, behaviors, and pain points. These are succeeded by continuous interaction. Additionally, Borah et al. (2024, p. 3531) mentioned that messaging automation supports seizing capabilities. This happens by enabling rapid experimentation with personalized offers and service interventions on a large scale. Conversational AI facilitates resource reconfiguration. This facilitation comes by redistributing tasks between human agents and automated systems. Dhawas et al. (2024, p. 66) and Shah & Kavathiya (2024 p.511) stated that this capability allows organizations to more flexibly adapt service structures, even if they are under conditions of demand volatility.

In the context of the enterprises that are characterized as customer-centric, conversational AI contributes to differentiation strategies. It is not a coincidence that the theory of strategic management of Porter (1985, p.66) highlights that differentiation relies on superior customer experience and not on product features or on price, something that is also mentioned by the more recent study by Lemon & Verhoef (2016, p.69). AI-based conversational interfaces offer companies the opportunity to offer consistent interactions. This provision exists at many different touchpoints of companies with their customers. This is a capability that increases the perceived quality of the services that are offered. In addition, it enhances customers' response to specific brands. Huang & Rust (2021, p.30) conducted a study in the fields of marketing and information systems. This study showed that timely communication of companies with their customers, which is also personalized, ends up

having a positive influence on customers' satisfaction. This is in line with the view expressed by Lemon & Verhoef (2016, p.69). Lemon & Verhoef (2016, p.69) and Huang & Rust (2021, p. 30-31) reported that the personalized approach of businesses towards their customers also affects customer loyalty. All of this ends up providing firms with their desired competitive advantage.

The study conducted by Raisch & Krakowski (2021, p.192) was based on the field of strategic management. From its results, this study warns that the advantages based on Artificial Intelligence might disappear in the long term. This possibility exists if competitors can reproduce technological solutions with great ease. Thus, it became necessary for firms to emphasize complementary solutions. Equally necessary was their orientation towards their organizational alignment with new needs. Both the adoption of complementary solutions and organizational alignment are the main factors that create value in Artificial Intelligence, as also highlighted by Brynjolfsson et al. (2017, p.21). Interactive Artificial Intelligence might offer strategic benefits when there is the necessary support from business executives. Conversational AI must also be supported by existing data governance frameworks. It also needs cross-functional collaboration between IT, marketing, and human resources management. If this alignment is not achieved, then AI investments risk being isolated technology initiatives. If this happens, then their impact might be possibly limited (Raisch & Krakowski, 2021, p.192).

One further dimension in strategic management, which is worth mentioning, is the role that Artificial Intelligence plays in reshaping the competitive dynamics of business entities. AI through conversation gives businesses the ability to scale the interaction they develop with their customer base. This is possible to be done without any corresponding increases in the work requirements that businesses have from their employees. Thus, cost structures change. At the same time, competitive positions shift in markets characterized by imperfect competition. This is a scalability that allows business entities to serve specialized segments, increasing their levels of profitability. This is made possible through the exchange of personalized messages with customers. Therefore, this calls into question traditional assumptions regarding economies of scale. As a result, AI-based communication can support cost leadership. At the same time, it can also support business differentiation strategies. However, this support depends on how AI-based communication is strategically deployed (Brynjolfsson et al., 2017, p. 35).

Finally, ecosystem-based perspectives emphasize that conversational AI operates on broader digital platforms. They also argue that conversational AI is functional in networks of partners. Adner (2017, p. 40) and Brynjolfsson et al. (2017, p. 4) pointed out that messaging technologies are based on external platforms. They also rely on APIs and cloud infrastructures. This implies the existence of strategic dependencies. At the same time, it implies the creation of governance issues. Therefore, companies are obliged to find ways to leverage platform ecosystems. In this way, they will be able to have rapid growth. Also, in this way, they will end up maintaining the desired strategic control over their customer data, but also over the interaction channels they develop with their customer audience.

2.3 Economic Implications

The AI-driven conversational technologies diffusion has important economic implications for the cases of the firms that operate in markets. Their economic implications are also important for the businesses that are characterized by imperfect competition and information asymmetries. First, Kush (2025, p.249) and Ezrachi & Stucke (2020, p.52) mentioned one main effect of the AI-driven communication that concerns pricing strategies. Traditional pricing models rely on limited customer information. They also rely on static segmentation. Both Kush (2025, p.249) and Shapiro & Varian (1999, p.55) supported that these constrain a firm's ability to tailor prices to the individuals' willingness to pay. The conversational AI systems, as it was also mentioned before, are integrated into messaging platforms. Then, they generate continuous streams of interaction data. According to Kush (2025, p.249), this data enhances firms' informational advantage regarding customer needs and price sensitivity. This enables more refined forms of price discrimination. It also enables personalized offers, particularly in the cases of markets that are service-oriented and digitally mediated.

Ezrachi & Stucke (2020, p.52-53) and Varian (2019, p.399) suggest that AI-supported communication can facilitate dynamic pricing strategies. This might succeed by reducing search costs for the companies, while at the same time it maintains perceived convenience for the consumers. Varian (2019, p.399) stated that from the perspective of economic efficiency, interactive Artificial Intelligence affects both resource allocation and productive efficiency. On the demand side, the messaging automation reduces information friction. This happens by providing immediate responses and clearer product information. Messaging automation also provides guided decision-making processes. This might lower

consumer search costs. It might also reduce mismatches that exist between consumer preferences and purchased products. This leads to the direct improvement of allocative efficiency (Varian, 2019, p.399).

While Varian (2019, p.399) mentioned the demand side, Brynjolfsson et al. (2017, p. 26) state that from the supply side, automated communication offers firms the opportunity to serve larger customer bases. They can do so without proceeding to proportional increases in their labor input. This leads to productivity gains through the creation of economies of scale. Also, the study of Brynjolfsson et al. (2017, p.6-7), which emphasized digital automation, shows that such technologies contribute to output growth. They primarily do so through process optimization, rather than capital deepening alone.

The productivity effects are salient in customer service, sales, and post-purchase support functions, where conversational AI can substitute or augment human labor. Acemoglu & Restrepo (2020, p. 2188) mentioned that AI-driven productivity gains often emerge from task reallocation, and not from the replacement of full labor. For instance, repetitive and low-complexity interactions are automated. At the same time, human agents can focus on complex problem-solving and relational tasks. A task-based transformation that can increase the overall labor productivity and service throughput. This might happen, although its distributional effects depend on organizational design and workforce adaptation (Acemoglu & Restrepo, 2020, p. 899). These issues are further explored in subsequent sections of this chapter.

Conversational AI also influences competitive dynamics in the context of that are imperfectly competitive markets. For example, Lemon (2002, p.295) supported the opinion that the firms that have early and effective AI adoption might lower marginal interaction costs. Therefore, they can achieve cost advantages, which are not easy to replicate by smaller or less digitally mature competitors, and this argument is aligned with Brynjolfsson et al. (2017, p. 4) and Varian (2019, p.416-417). AI-driven communication enables differentiation. Varian (2019, p.416-417) explained that differentiation is enabled through personalization and responsiveness. It also allows companies to mitigate price competition by differentiating themselves through the quality of the customer experience. As a result, consumers evaluate the overall value proposition and they don’t focus solely on price. This allows companies to maintain higher profit margins and at the same time enhance customer loyalty.

However, Ezrachi & Stucke (2020, p.54) mention some concerns regarding market power and algorithmic coordination. In the markets where AI systems are widely deployed, there is a potential for pricing algorithms to learn. There is also a potential for the pricing algorithms to be adapted in ways that tacitly sustain higher prices or reduce competitive intensity. This is possible to happen even without explicit collusion. When conversational AI is a communication interface, its integration with the backend pricing and recommendation systems might contribute to the reduction of the competitive intensity without lowering the prices. This outcome might exist even indirectly. This increases and justifies the importance of governance and regulatory oversight (Ezrachi & Stucke, 2020, p.54). At the macroeconomic level, the AI-driven communication technologies contribute to broader productivity trends. They do so, although some studies, like the one that had been conducted by Brynjolfsson et al. (2017, p.28), identify a "*productivity paradox*". Such a paradox, investments in AI and digital technologies do not necessarily lead to measurable productivity gains.

Concluding this section, it is clarified that the economic impacts of interactive AI concerns market efficiency. It also concerns improvements in productivity and pricing strategies. This means the existence of economic effects, which translate into financial results at the company level. Therefore, operational efficiency, combined with improvements in customer engagement achieved through messaging automation, impacts business revenue, costs, profitability, and ROI. Thus, interactive AI technologies must also be considered from an economic perspective. It is necessary for understanding how they contribute to value creation and ROI, leading to long-term sustainability. This is what is analyzed in the next section.

2.4 Financial Implications

A major theme in the literature concerns cost reduction and operational efficiency. These are the two main economic drivers behind the adoption of Artificial Intelligence. Conversational Artificial Intelligence gives business entities the ability to automate their interactions with a large number of customers. This is done with businesses having a significantly lower cost burden. We are referring to a marginal cost that is at least lower compared to the provision of services that also includes the involvement of the human factor. The studies of Davenport & Ronanki (2018, p. 108) and Brynjolfsson & McElheran (2016,

p. 133) show that the automation of customer service, as well as automation in sales, can reduce labor costs. It is also able to reduce customer service cycle times. At the same time, it also ends up reducing the rates of errors originating from the human factor. This results in measurable cost savings for businesses. In turn, these savings lead to increased profit margins (Davenport & Ronanki, 2018, p. 108; Brynjolfsson & McElheran, 2016, p. 133).

Beyond the direct cost effects, revenue-enhancing mechanisms that are associated with AI-driven communication are also worth mentioning. For instance, messaging automation supports faster response times. It also leads to higher conversion rates. Additionally, it supports improved customer retention. These positive outcomes might affect Customer Lifetime Value (CLV). CLV refers to the total financial value a customer generates for a business, throughout the entire duration of their relationship with the company (Firmansyah et al., 2024, p.12-13). The studies of Lemon & Verhoef (2016, p.69) and Huang & Rust (2021, p.47), are concerned with the fields of marketing and information systems, show that improved customer experience and personalization are often enabled by conversational AI. Both of these are associated with increased repeat purchases and cross-selling opportunities. From a financial perspective, the above-mentioned effects are more difficult to isolate. But, at the same time, they are critical for capturing the full value proposition of conversational AI investments (Lemon & Verhoef, 2016, p.69; Huang & Rust, 2021, p.47).

Regarding ROI calculations, which are used to evaluate the profitability of an investment by comparing the profits derived from the investment with its total cost, they compare the initial investment cost with the short-term financial returns. These calculations may not take the desired depth into account of the value of AI-based automation. McAfee & Brynjolfsson (2017, pp. 31-32) reported that investments in AI lead to high upfront costs. At the same time, economic benefits are not directly observed. Trigeorgis & Reuer (2017, p. 42) propose broader investment assessment frameworks. These frameworks incorporate the logic of real choices. They propose recognition of strategic flexibility and learning opportunities created by AI capabilities. Conversational AI can be seen as an investment, which enables future applications and incremental innovation. On this point, McAfee & Brynjolfsson (2017, p.36) and Trigeorgis & Reuer (2017, p.42) agree.

One more and equally important financial implication is risk and uncertainty. The AI projects are subject to technological and organizational risks. These risks include model performance limitations. They further concern user resistance. At this point, Kohli & Grover

(2008, p.23) mention that there is a need to incorporate risk-adjusted evaluation methods during the assessment of AI investments. For instance, messaging automation mitigates some operational risks. It does so by standardizing processes. It also creates operational risks by reducing dependency on scarce human resources. Yet it develops new risks. These risks are related to data security and regulatory compliance. They are also related to reputational damage that comes from any service failures.

In addition to Kohli & Grover (2008, p.23), Mikalef et al. (2018, p.547, 2019, p.272) pointed to the importance of performance measurement systems in realizing financial value from automation. Business entities, which link conversational AI deployment to clearly defined Key Performance Indicators (KPIs), are more likely to translate technological adoption into financial outcomes. Characteristic examples of indicative KPIs are cost per interaction, resolution time, conversion rates, and customer satisfaction. Casciani et al. (2024, p.183) states that without such measurement systems, the investments in AI systems are led by the risk of becoming sunk costs, which have an ambiguous financial impact.

Finally, from a value creation perspective, conversational AI contributes to short-term financial performance. AI contributes to long-term firm valuation. By increasing the scalability and the data-driven decision-making, alongside increasing customer relationship quality, AI-enabled communication can strengthen a firm's intangible assets. These include brand equity and customer capital. They also include organizational knowledge. This is the reason why Lev & Gu (2016, p.23-24) recognized that such intangible assets increasingly drive firm market value especially in digital and service-oriented sectors. However, these assets are not always directly observable in financial statements. Despite this, they influence both investor perceptions and long-term competitiveness.

2.5 Organizational & Workforce Impacts

The recent literature increasingly emphasizes the conversational AI's overall and broader implications for organizational structures, workforce adaptation, human resource management, and human-AI collaboration (Raisch & Krakowski, 2021, p. 208-209). As Raisch & Krakowski (2021, p.208-209) mention, in this context, conversational AI does not simply automate communication tasks. Despite this, it has gradually changed the way

organizations coordinate work and manage employee capabilities. This is also supported by the study that was conducted by Acemoglu & Restrepo (2020, pp. 899-900).

Acemoglu & Restrepo (2020, p. 2188) noted that one of the most frequently discussed organizational implications concerns the redistribution of tasks that exist between automated systems and human employees. According to Acemoglu & Restrepo (2020, p. 899), artificial intelligence technologies have the tendency to produce task-based transformation. Therefore, they do not aim for a full occupational replacement. Repetitive and standardized activities that are characterized by low complexity are even more automated. Huang & Rust (2021, p.45-46) added that at the same time, during this automation, the human employees mostly focus on tasks requiring judgment, creativity, emotional intelligence, and complex problem-solving. Conversational AI systems illustrate this shift clearly in the functions of customer service, sales, and communication management (Huang & Rust, 2021, p.45-46).

It is about a redistribution of responsibilities that has important consequences for the organizational structures. It has also important consequences for the capabilities of the human resources. Conversational AI generates hybrid work environments, as mentioned by Jarrahi (2018, p.577). In the context of these working environments there is a collaboration between employees and intelligent systems. Raisch & Krakowski (2021, p.208) supported that the human agents supervise automated communication processes. They also mentioned that human agents are asked to intervene in complex customer interactions. Furthermore, human agents tend to manage escalation procedures. These are procedures in which conversational systems cannot independently resolve customer issues.

Therefore, organizations need to redesign their workflows. They are also asked to redefine their employees' roles. This redefinition might be done in ways that integrate human expertise with automated communication infrastructures (Raisch & Krakowski, 2021, p.208). The transformation of human resource management is was discussed by Brougham & Haar (2018, p.239). They mentioned that digital communication technologies and conversational AI systems need employees to develop new competencies. These competences are associated with data interpretation. They are also connected to digital literacy. In addition, they are related to customer journey management and AI supervision. At this point, Keding (2021, p.132-133) added that the roles that are traditionally oriented to communication are evolving toward responsibilities that are considered as more strategic. Therefore, employees need the ability to interpret customer behavioral data. They also need

to be able to optimize interaction flows. Additionally, they have to collaborate with AI platforms that are capable of creating information about real-time communication.

Furthermore, Davenport & Kirby (2016, p.29) stated that organizations that achieve the highest possible value from the use of the AI technologies are those that can increase the capabilities of their employees. In this context, conversational AI plays the role of the complement to human expertise. This means that AI is an element that increases employee productivity. At the same time it improves the speed of the communication with the customers. This element further supports the efficiency of decision-making. This augmentation allows employees to focus on higher-value interactions with their customers. They also allow them to focus on relationship-building activities, while at the same time, the repetitive communication tasks are automated. This automation is allowed through messaging systems. It is also allowed through virtual assistants.

Workforce adaptation is often aligned with organizational resistance and uncertainty. As Brougham & Haar (2018, p. 239-240) mention, employees may perceive AI adoption as a threat to their job security. They might also think that they risk their professional identity or the stability of their professional roles. Consequently, the organizations that adopt conversational AI technologies must manage change carefully. As Tarafdar et al. (2019, p. 37-38) suggest they might be able to achieve this by promoting transparency and employee participation.

Raisch & Krakowski (2021, p. 192, 195) emphasize the importance of cross-functional collaboration in the organizational environments that are AI-enabled. Conversational AI systems have the tendency to operate across many different organizational functions. For example, these functions include marketing, customer service, IT, operations, compliance, and analytics. As a result, successful implementation needs coordination between departments, which traditionally operated independently. Jöhnk et al. (2021, p.5) also argued that the adoption of conversational AI needs leaders to combine technological understanding with strategic management capabilities. Leaders also need to combine technological understanding with customer-centric thinking and data-driven decision-making approaches. This means that executives have to evaluate AI investments on the one hand through operational metrics and on the other hand, through broader strategic considerations. These strategic considerations include customer experience and organizational agility. They also include innovation capability and increase long-term competitiveness.

Moreover, Teece (2007, p.1319) stated how important is conversational AI in supporting organizational agility. The AI-enabled communication systems create data about the interaction between the company and its customers. These data also include behavioral information about the customers. They are generated in real time. Therefore, they offer business entities the ability to respond more rapidly to changing preferences of the customers. At the same time, according to Möhlmann & Zalmanson (2017, p.1-2), conversational AI creates ethical concerns. These concerns are about employee monitoring and workplace surveillance. The AI-enabled communication platforms collect extensive data about employees' performance. These data also concern employees' response times. This ends up creating the possibility of increased managerial monitoring. It also creates the possibility of performance evaluation. On the one hand, these systems might improve operational visibility. They might also improve the measurement of the efficiency. On the other hand, they may raise concerns about employees' autonomy and their privacy.

Makarius et al. (2020, p.262) mentioned the quality of emotional labor and the interaction between humans and AI systems. They supported that employees, who get in touch with the customers and who operate alongside conversational systems, may experience role ambiguity. The might also face emotional strain. These are associated with handling complex escalated interactions. These interactions are not able to be solved by the automated systems. Keding (2021, p.132-133) also proposes that conversational AI contributes to the emergence of new organizational roles. It additionally contributes to professional specializations. Keding (2021, p.132-133) mentioned that the business entities need specialists in conversational design. They also require specialists in AI governance, messaging analytics, and chatbot optimization. These are hybrid roles and they combine communication expertise with technological capabilities.

Finally, conversational AI influences organizational culture, by promoting more data-driven and customer-centric operational models. According to the study of Tarafdar et al. (2019, p.37), the organizations that adopt messaging automation successfully tend to develop organizational cultures that emphasize continuous optimization. Their organizational cultures also emphasize adaptation to the customer's feedback. Considering this, conversational AI is a technological innovation. At the same time, it is an organizational transformation mechanism that affects workflows. It also ends up affecting leadership structures.

2.6 Identified Research Gaps

A significant gap in the literature concerns the limited integration between economic and organizational perspectives in conversational AI research. The studies (i.e., Brynjolfsson et al., 2017; Acemoglu & Restrepo, 2020) focus either on macroeconomic and productivity implications. Alternatively, they focus on operational automation outcomes. They do not sufficiently examine how these benefits are related to the organizational adaptation and managerial decision-making. They do not examine how companies can achieve cost reduction, automation efficiency, and labor productivity improvements independently of the challenges of employee adaptation. However, conversational AI implementation, in real-world organizational environments, affects technological infrastructures. It also affects the roles that are played by the employees and the organization's financial performance. This existing gap means that there is a need for more holistic research frameworks that might be able to link the above-mentioned dimensions.

Additionally, the literature (i.e., Huang & Rust, 2021; Adam et al., 2021) shows that there is a strong emphasis on customer-facing outcomes, for example, customer satisfaction, engagement, and personalization. There is comparatively less attention to internal organizational transformation. Literature, frequently examines how conversational AI improves customer experience and operational responsiveness. There are fewer studies that explore how organizations restructure their workflows. Even fewer studies emphasize on how organizations manage their human resources after the adoption of Artificial Intelligence. There is insufficient empirical understanding of how conversational AI affects organizational culture and leadership adaptation. There is not efficient empirical understanding of how conversational AI affects interdepartmental collaboration and long-term workforce development strategies.

In addition, much of the existing literature (i.e., Davenport & Ronanki, 2018) focuses on short-term operational outcomes. These are for example conversion rates and customer service efficiency. On the one hand, these findings are important. On the other hand, they do not fully explain how conversational AI contributes to the organizations' sustainable competitive advantage. They do not explain how conversational AI affects customer lifetime value, organizational scalability, and long-term value of a company. Thus, additional longitudinal research is required. Longitudinal research might evaluate whether the initial

performance gains that are associated with messaging automation remain sustainable as technologies mature while competitors adopt similar systems.

Furthermore, the current literature (i.e., Acemoglu & Restrepo, 2020; Raisch & Krakowski, 2021) is still mostly concentrated on technological performance. It is also mainly concentrated on customer interaction metrics. There is limited attention to human-AI collaboration models. There is also limited attention to workforce adaptation processes. Studies acknowledge that conversational AI redistributes the tasks between automated systems and human employees. Yet there is still insufficient empirical evidence that regards the most effective organizational structures for managing the hybrid human-AI work environments. There is not much information about the optimal balance that exists between automation and human involvement. There is insufficient information about the evolution of managerial roles in the AI-enabled organizations. Further information is also required about the long-term psychological and professional implications for employees who are working alongside conversational systems.

Also, the literature reveals a methodological imbalance that concerns conceptual discussions and theoretical frameworks over real-world empirical evidence. Many studies (i.e., Keding, 2021) discuss conversational AI from theoretical or predictive perspectives. These studies do not rely on operational business data that is derived from actual enterprise implementations. This means that there is limited empirical research that combines quantitative campaign performance metrics with qualitative strategic data that come from industry leaders.

Even more, previous studies (i.e., Firmansyah et al., 2024; Lemon & Verhoef, 2016) recognize that AI technologies may improve operational efficiency. They also state that AI technologies improve customer retention. There are few studies that offer detailed financial evaluation frameworks. There are not sufficient frameworks that connect messaging automation with ROI. Even more, there are not sufficient frameworks that link messaging automation with customer acquisition costs, customer lifetime value, and long-term revenue generation. In many cases, conversational AI is discussed as a technological innovation. It is not approached as a strategic investment.

A further research gap exists regarding cybersecurity and regulatory governance issues that are associated with the development of conversational AI. Prior studies acknowledge concerns regarding transparency, and user trust (i.e., Luo et al., 2019; Suri, 2022). At the same time, there remains limited research on the examination of how

organizations operationalize General Data Protection Regulation (GDPR) compliance and ethical governance in the conversational messaging ecosystems. This limitation is even more important as messaging systems process sensitive financial and personal information about customers. The next chapter presents the methodology of the current research. It introduces the research philosophy and its design. Then, the description of the data sources follows. Finally, all the research ethical considerations are clarified.

Chapter 3: Research Methodology

3.1 Research Philosophy & Design

The present study adopts a mixed-methods research design through a combination of both quantitative and qualitative approach. The main aim is the provision of a multi-dimensional analysis, in the context of conversational artificial intelligence is faced as a strategic business asset. It is about a methodological choice, which is aligned with the research objective of a dual examination, on the one hand of the measurable business outcomes, in which performance efficiency, cost optimization, and engagement metrics are indicatively included, and on the other hand, of the conversational AI adoption's underlying strategic, organizational, and managerial implications.

From a research philosophy perspective, this study is positioned in a pragmatic paradigm. Pragmatism gives the opportunity for the integration of different methodological approaches, to address the research problem effectively. This means that it does not adhere strictly to a single epistemological stance. It is a fact that conversational AI operates at the intersection of technology and organizational transformation. Considering this, pragmatic orientation is able to achieve methodological pluralism. This means that it enables the empirical measurement with contextual interpretation.

Furthermore, the quantitative component is based on a positivist logic. This logic focuses on objective and measurable indicators. These indicators come from real-world business cases. For example, they include delivery rates, Click-Through Rates (CTR) and engagement levels. They also include conversion indicators and cost-related variables. The use of such data leads to the identification of patterns and comparisons across the different campaigns.

The qualitative component follows an interpretivist orientation. The reason is that it aims to explore the way through which industry specialists perceive conversational AI in the organizational environment. By conducting semi-structured interviews with high-level executives this research offers information that is related to strategic vision. It is also related to organizational transformation. It also offers information about any potential risk considerations.

Therefore, this dissertation implements a convergent mixed-methods design. In this specific framework, quantitative and qualitative data are collected. Then, they are analyzed in parallel. They are also subsequently integrated during the interpretation phase. This methodology allows triangulation. It also increases validity. Furthermore, the current methodology increases the findings' robustness.

In addition, this research design is on the one hand exploratory and, on the other hand, explanatory. It is characterized as exploratory because conversational AI is an evolving field. At the same time, this research is characterized as explanatory because it aims to create relationships between messaging automation and main business results, like for instance operational efficiency.

The research design's additional element is its reliance on real business data. As it was outlined in the structure of the current dissertation, this study emphasizes the analysis of messaging platforms. These are considered as the main components of the strategies that are implemented in the field of the digital customer interaction. The actual campaign data's inclusion strengthens this research's external validity. The reason is that it reflects real operational environments. The next section presents the data sources. At first, primary data sources are introduced. Then, secondary data sources are analyzed.

3.2 Brief Description of Apifon

As it will be mentioned in the following sections of this chapter, the primary quantitative and qualitative research data come from company Apifon. It is about a technology company, which specializes in business messaging. Also, Apifon specializes in customer engagement solutions and conversational AI technologies. Apifon operates internationally and it offers communication solutions through multiple digital channels. These channels include, for instance, SMS, Viber, WhatsApp, and email.

In addition, Apifon develops AI-powered conversational tools. For example, it develops virtual assistants. Additionally, it develops audience segmentation systems, marketing automation mechanisms, and customer interaction management solutions. Apifon represents an appropriate case for the adoption of conversational AI, since this is the issue that is investigated in the context of this dissertation. Apifon's business model is related to digital communication technologies, and it is connected to processes that concern customers' engagement. This makes Apifon a suitable case for the current research.

Apifon was founded in 2014 in Thessaloniki. The main purpose of the company's establishment is to meet the need for a modern business communication tool. Within a few years, this company experienced rapid growth. This was evidenced by the expansion of its activities in Athens, Madrid and Vienna. In fact, Apifon managed to become one of the most important business messaging providers in the Greek market. Apifon places emphasis on innovation and strategic partnerships. It collaborates with large international organizations. Typical examples of organizations that fall within its network of partners are Google and IBM.

Finally, it is mentioned that the company's philosophy is based on creating a working environment that promotes collaboration and trust. Emphasis is also placed on continuous learning and creativity. According to information provided by the company itself, on its official website, https://www.apifon.com/company, this adopted organizational culture is a basic factor in the development of innovative solutions that help businesses strengthen their communication with their customers.

3.3 Data Sources – Descriptive Data

The primary and secondary data of this study consists of on the one hand qualitative and, on the other hand, quantitative sources. This combination leads to a holistic examination of the adoption of conversational artificial intelligence in real organizational environments. Also, the fact that the dataset of this research is at the same time qualitative and quantitative is helpful for increasing the robustness levels. This is achieved by the combination of measurable performance results with information that is given by interviews with two experts. At the qualitative level, this dissertation incorporates semi-structured interviews.

3.3.1 Primary Quantitative Data

As for the quantitative data, they come from specific business cases. These cases were obtained from Apifon's private corporate documentation. The use cases were selected because they present practical applications of conversational AI technologies in real business environments. These Use Cases were treated as primary empirical findings. They

demonstrate the implementation of conversational AI technologies across different sectors. The use cases that were used are the following:

Business Case 1: Retail Industry Applications

- Click-to-WhatsApp Campaign
- Viber for Business Retail Applications
- Customer Loyalty Programs
- Customer Feedback Collection
- Personalization Campaigns
- Cross-selling and Upselling Campaigns
- Customer Re-engagement Strategies
- Cart Abandonment Reduction

Business Case 2: Kids Fashion Brand

- Transition from Bulk Messaging to Conversational Messaging
- Peak Awards Best Use of Data Campaign
- "18 Years Kids Fashion Brand" Campaign
- "Shoes Bazaar" Campaign
- "Loyalty Rewarded" Campaign

Business Case 3: Health and Diagnostic Services

- Health & Wellness Fitness Center
- Diagnostic Center Customer Experience
- Diagnostic Center Appointment Notifications
- Diagnostic Center Reminder Systems

Business Case 4: Energy Sector Applications

- Customer Communication Solutions
- Billing Notifications
- Service Alerts
- Newsletters and Promotional Offers

Business Case 5: Banking and Insurance Services

- Secure Customer Communications
- Information Sharing and Notifications
- Privacy and Security Applications

Business Case 6: Conversational Commerce and WhatsApp Solutions

- WhatsApp Demo Applications

- Click-to-WhatsApp Performance Examples

Business Case 7: Customer Engagement Performance Analytics

- Mattress Company Performance Comparison (2014-2025)
- Customer Engagement and Campaign Effectiveness Metrics

At this point, it is important to note that all quantitative data comes from operational business environments. This means that they are not experimental settings. This increases the validity of this research. The findings are based on real market conditions. They are also based on real organizational practices, as was also stated before. At the same time, to ensure confidentiality and compliance with data protection regulations, all company-specific identifiers have been anonymized. Also, it is noted that this analysis refers only to industry sectors. It also refers only to use-case categories. This means that it does not disclose any identifiable corporate information.

3.3.2 Primary Qualitative Data

Primary data were collected through semi-structured interviews. The interviews were conducted with two senior executives who occupy Apifon's strategic positions. The purpose of the interviews was to collect information about many different dimensions which are associated with the implementation of conversational AI. We selected the conduction of semi-structured interviews because they offer consistency across participants. Semi-structured interviews also offer flexibility for the exploration of emerging themes.

For the conduction of the interviews, an interview guide was used. The interview guide contained open-ended questions. During its development we considered the research objectives of this dissertation. Therefore, the phase of the qualitative data collection included two interviews with Ioannis Terzakis, Apifon's CEO, and Kyprianos Vasilopoulos, Apifon's CISO. Each interview included eight main questions (Table 1), which were tailored to the specialty of each of the two interviewees.

Table 1. Interview questions per participant

Interview Questions for Ioannis Terzakis	Interview Questions for Kyprianos Vasilopoulos
Q1: Messaging platforms have evolved significantly over the last decade. How do you interpret this transformation?	Q1: How has the cybersecurity landscape evolved with the rise of conversational messaging?

Q2: When does messaging become a strategic enterprise asset rather than simply an operational tool?	Q2: Why is cybersecurity now considered a fundamental business requirement rather than an optional feature?
Q3: From a financial perspective, how do companies measure the return on investment of conversational AI?	Q3: What are the most important GDPR considerations when deploying conversational AI systems?
Q4: Could conversational messaging eventually become the primary digital interface between businesses and customers?	Q4: Many companies choose messaging providers based primarily on cost. Why is infrastructure quality critical?
Q5: For example, could we realistically imagine a scenario where someone applies for a loan through a WhatsApp bot?	Q5: How does enterprise cloud infrastructure contribute to security?
Q6: How do conversational technologies change the traditional customer journey?	Q6: Messaging channels are increasingly targeted by fraud attempts. How can companies protect their customers?
Q7: What organizational changes are required for companies adopting conversational AI?	Q7: What role does regulation play in strengthening digital resilience?
Q8: Looking ahead, what role do you see conversational AI playing in the digital economy?	Q8: Looking ahead, how will cybersecurity evolve alongside conversational AI?

Source: Interview Guide (Appendix I)

Therefore, participants were able to express their professional perspectives. The duration of each interview was approximately 30-45 minutes. All interviews were recorded and then they were transcribed. The complete interview transcripts are included in the Appendix I.

As mentioned before, the interviews were conducted with two senior industry experts with professional experience in digital transformation, who are also experienced in business strategy and cybersecurity. Participant 1, Ioannis Terzakis, currently holds the position of Apifon's Chief Executive Officer. Before joining Apifon, he held senior

financial and operational leadership positions in multinational organizations. For instance, he held leadership positions in Microsoft, Samsung Electronics, and Coca-Cola HBC. His academic background includes undergraduate and postgraduate studies in Business Administration, Accounting, and Auditing. His professional profile includes strategic management expertise. His professional profile also includes experience in digital business transformation.

Participant 2, Kyprianos Vasilopoulos, is Apifon's Chief Information Security Officer (CISO). He has more than twenty years of professional experience in information security. His professional experience also includes cybersecurity consulting. He is experienced in security operations, too. During his career, he has held senior technical and leadership positions in international cybersecurity organizations. He has participated in large-scale security projects, and in infrastructure initiatives. Table 2 presents a summary of the two participants' profiles:

Table 2. Interviewees' profiles

Participant	Position	Area of Expertise	Professional Experience
1. Ioannis Terzakis	Chief Executive Officer (CEO)	Business Strategy, Digital Transformation, Financial Management	15+ years
2. Kyprianos Vasilopoulos	Chief Information Security Officer (CISO)	Cybersecurity, Information Security, Compliance	20+ years

Source: Self-created table

3.3.3 Secondary Data

In addition to primary data, the current study includes secondary data sources. This strengthens its theoretical basis. It also increases empirical validation. Additionally, it offers a wider context of the industry, and this makes the analysis of conversational artificial intelligence easier. A main component of the secondary data of this dissertation is the peer-reviewed academic papers that were used in the context of the literature review.

The literature review synthesizes research from different fields. These fields included artificial intelligence and strategic management. They also included marketing and

information systems. These sources inform the interpretation of conversational AI adoption. They include concepts such as resource-based view and dynamic capabilities. They also include concepts about customer experience management and value creation that is AI-driven.

3.4 Ethical Considerations

The present study adheres to strict ethical standards in relation to data collection and analysis. This ensures full compliance with the established research ethics principles. Considering that research involves, on the one hand, primary qualitative data and, on the other hand, quantitative data from real business cases, attention is paid to issues that concern confidentiality. Issues about data protection and participants' informed consent were also considered. The data that has been used in this research has been handled in accordance with the principles of General Data Protection Regulation (GDPR). These principles include data minimization. They also include purpose limitation and secure data processing. Furthermore, no personal data that could directly identify individuals or organizations had been disclosed. Any references to companies are fully anonymized. Also, the analysis is presented at the level of industry sectors. It is not presented in the context of specific business entities.

Even more, about the qualitative component, informed consent was obtained from all interview participants. This procedure was completed before the research data collection. The participants were informed about the purpose of the research. They were also fully informed about the use of their responses. In addition, their participation was voluntary. Also, the interviewees had the right to withdraw at any stage of the research. They were informed that in this case they would not have any consequences. Also, the research findings are presented in a generalized manner that is non-identifiable.

Furthermore, the study ensures confidentiality in relation to the quantitative business data. The datasets come from operational campaigns, and they include performance metrics. Therefore, they are considered commercially sensitive. The reason is that they present internal business processes. They also reflect performance outcomes. For this reason, the data is presented in aggregated and anonymized form. In addition, the study acknowledges the potential ethical implications of conversational AI technologies. These considerations are reflected in the design of the research. They are also reflected in the interpretation of the

findings. Issues, like for example secure data handling and responsible automation, are treated as research constraints. At the same time, these issues are faced as integral aspects of the phenomenon that is investigated.

Finally, this research follows the general principles of academic integrity. These principles include proper citation of all secondary sources. They additionally include avoidance of plagiarism and accurate representation of data. All the sources are clearly referenced. Also, the analysis is conducted in a transparent manner.

Next chapter presents the findings and includes the analysis of both primary and secondary data. After economic and strategic findings, financial and organizational findings follow. Finally, practical Business cases are presented.

Chapter 4: Findings and Analysis

4.1 Economic & Strategic Findings

An important economic and strategic finding concerns the strategic importance of messaging platforms as main infrastructures that improve the interaction of the companies with their customers. According to the interview that was conducted with the Chief Executive Officer (CEO) of Apifon, Ionannis Terzakis, it was stated that messaging has become "*a digital service layer between enterprises and customers*". Ionannis Terzakis characteristically mentioned the following: "*Over the last decade, messaging has shifted from being a simple notification tool to becoming a core customer interaction interface. Initially, businesses used SMS to send alerts or transactional information. Today, messaging platforms enable fully interactive experiences where customers can complete complex tasks without leaving the conversation environment. This shift has been accelerated by conversational AI technologies. Businesses are now able to automate a large part of customer interactions while maintaining a personalized experience. As a result, messaging is no longer just a communication channel; it becomes a digital service layer between enterprises and customers*" (Appendix I, Q1, p.94).

This transformation changes the role that communication technologies have in the enterprise environments, and this is happening because the messaging platforms have become integrated into many different organizational functions, and these functions include marketing, customer service, sales, onboarding, and customer retention. Therefore, the results of the interviews lead to the conclusion that conversational interfaces operate as integrated ecosystems, which can support the overall customer journeys, and they succeed through a single interaction environment. Also, this strategic transition is supported by the quantitative and operational data that have been provided through the Apifon case studies and Viber Business use-case documentation. The retail industry's findings show how messaging automation contributes to competitiveness across the full marketing funnel. The "*Retail Viber for Business Use cases*" report of September 2023 explains, as it is presented in Figure 1, that messaging technologies support businesses in raising brand awareness and in generating new leads, while at the same time helping reduce cart abandonment, increasing conversions, improving repurchase cycles, and encouraging customer loyalty of the

customers. They achieve this through strategies that emphasize personalized customer experience.

Figure 1. Retail Viber for Business Use Cases - Goals

Source: Apifon's report "Retail Viber for Business Use cases" (2023, p.6)

Moreover, the "*Retail Viber for Business Use cases*" report of September 2023 mentions that retailers face major operational and competitive challenges. In the context of these challenges, rising customer acquisition costs, declining effectiveness of traditional communication channels, and the growing customer expectations for faster and more personalized interactions are included (Figure 2).

Figure 2. Retail Viber for Business Use Cases - Challenges

Source: Apifon's report "Retail Viber for Business Use cases" (2023, p.2)

The findings lead to the fact that conversational AI is able to face these challenges, mainly through the reduction of communication friction the traditional digital customer journeys use to ask from the users to navigate across multiple interfaces, and different websites or applications. On the other hand, conversational interfaces make these interactions even simpler because they are guiding users through step-by-step communication processes in familiar messaging environments that are also structured. This is also justified by the "*Retail Viber for Business Use cases*" report of September 2023 in page 2.

Even more, according to Ioannis Terzakis: "*Conversational interfaces reduce friction. Traditional digital journeys often require users to navigate multiple pages or applications. Conversational experiences instead guide users step by step. This creates a more natural and intuitive interaction model, which ultimately increases completion rates and improves customer satisfaction*" (Appendix I, Q6, p.96). This finding is important because it means that friction reduction affects conversion performance, alongside engagement duration and customer retention results. The conversational AI's operational effectiveness is also evident in the engagement metrics, which were derived from the "*Click-to-WhatsApp campaign*" performance data. It is shown that conversational advertising formats outperform traditional digital advertising approaches, and they do so, on the one

hand, in engagement and on the other hand in conversion results. Click-to-WhatsApp campaigns achieved conversion rates up to three times higher than the conventional digital advertising campaigns (Figure 3). At the same time, personalized messaging strategies improved average conversion performance by approximately a percentage of 40% (Figure 3). In parallel, click-through rates doubled in cases where the interactive communication buttons were used, and at the same time, a percentage of 70% of the users engaged with advertisements in the first hour of message delivery (Figure 3).

Figure 3. Click-to-WhatsApp campaign

Source: Apifon's "Click-to-WhatsApp" performance report (2024, p.1)

The above findings show that conversational AI modifies the consumers' behavior through the increase of immediacy and, at the same time, by reducing the barriers that exist in decision-making and by encouraging the real-time interaction of the customers with the brands. Another finding is about the even more important role that is played by personalization and audience segmentation in the context of AI-driven communication strategies. A characteristic example is the Kids Fashion Brand case study, which offers empirical evidence that is needed about the data-driven segmentation and personalized mobile marketing's effectiveness. Taking into consideration the "*Kids Fashion Brand Peak Awards Best Use of Data*" presentation, it is observed that the organization transitioned from traditional bulk messaging practices toward "*segmentation intelligence*", in which customer communication had been adapted to specific behavioral characteristics and to specific

customer profiles. This shows that traditional mass communication approaches were associated with lower engagement levels, and they also led to poor results that concern the customer experience (Figure 4).

Figure 4. Kids Fashion Brand Peak Awards Best Use Of Data - Transition from bulk messaging

Source: Apifon's "Kids Fashion Brand Peak Awards Best Use Of Data" section of "Transition from bulk messaging" (2026, p.4)

This does not happen in the case of the AI-supported segmentation strategies, which enabled more targeted communication and improved personalization, alongside higher effectiveness of the campaign (Figure 5).

Figure 5. Kids Fashion Brand Peak Awards Best Use of Data - Results

Source: Apifon's "Kids Fashion Brand Peak Awards Best Use Of Data" section of "Results" (2026, p.18)

The same Kids Fashion Brand's case study further explains that the organization adopted methodologies, which include dynamic audience modeling, together with cross-channel attribution analysis and real-time performance feedback loops (Figure 6). These findings are significant because they show the way through which conversational AI extends further automation in adaptive communication optimization. It does not rely on static customer databases, and instead, organizations tend to use real-time behavioral data, for them to be able to dynamically modify communication strategies. It is about a capability that alters competitive dynamics, and the reason is that enterprises are no longer competing only through pricing or through the qualities of their products or services, but through communication relevance and personalization effectiveness, alongside precision.

Figure 6. Kids Fashion Brand Peak Awards Best Use Of Data - Methodology

Source: Apifon's "Kids Fashion Brand Peak Awards Best Use Of Data" section of "Methodology" (p.4, 2026)

The campaign-level performance results that come from the Kids Fashion Brand's Viber campaigns offer quantitative support for the above-mentioned theoretical observations. According to the "*Kids Fashion Brand Peak Awards Best Use of Data Campaign Results*" file, several campaigns have led to exceptionally high Returns on Advertising Spend (ROAS) and Return on Investment (ROI). A characteristic example is the "*LOYALTY REWARDED*" campaign, which achieved a CTR of 9,70% and the same campaign generated 3,542 clicks and produced an ROI exceeding 11,000%. Similarly, other campaigns showed ROAS values, ranging from approximately 29 to 59 times the original campaign investment. These findings show that personalized conversational campaigns can create substantial commercial outcomes, and at the same time, they might improve the quality of customer interactions (Table 3).

Table 3. Kids Fashion Brand Peak Awards Best Use Of Data - Results

Type	Recipients	Seen	Delivered	Cost	CTR	CPC	CLICKS	Revenue	ROAS	ROI
Viber	74371	59%	87%	1.141,77 €	1,50%	1,15 €	987	50.744,00 €	44,44	4444%
Viber	42559	69%	98%	724,61 €	2,95%	0,57 €	1269	42.858,95 €	59,15	5915%
Viber	41660	87%	98%	714,44 €	4,08%	0,48 €	1477	79.313,13 €	111,01	11101%
Viber	54348	82%	89%	917,22 €	1,40%	1,35 €	677	26.956,12 €	29,39	2939%
Viber	53560	61%	81%	904,76 €	9,70%	0,22 €	3542	40.832,16 €	45,13	4513%

Source: Apifon's "Kids Fashion Brand Peak Awards Best Use of Data" section of "Results" (2026, p.1)

In addition, the findings show that conversational AI changes the way in which organizations approach, on the one hand, customer loyalty and, on the other hand, retention strategies. In further analysis, traditional digital communication channels, and especially emails and social media, tend to suffer from declining open rates, and they, at the same time, present lower responsiveness from the consumer audience. On the other hand, the platforms of conversational messaging operate in communication environments that are already integrated into the users' daily routines. This is proven by the data that are provided from the "*Retail Viber for Business Use cases*" report, which shows that the users of Viber spend about 35 minutes, daily, on the platform. The same report also shows that messaging solutions offer immediate communication opportunities with the customers (Figure 7). Therefore, this is about a high level of platform engagement, which increases message visibility. It also enhances the effectiveness of customer communication strategies.

Figure 7. Retail Viber for Business Use cases - Viber for Business benefits

Source: Apifon's report "Retail Viber for Business Use cases" (2023, p. 3)

As for the Health and Wellness Fitness Center case study, it also shows how the integration of messaging contributes to customer retention and to long-term business expansion. The "*Health and Wellness Fitness Center Fitness Excellence*" report shows that the company integrated Viber, SMS, and email communication in a unified communication platform, and its aim was to improve the customer engagement levels and the processes that are followed in the context of streamlined communication. The results show significant membership growth. In more analysis, the customer base increased from 70,000 to 150,000 members. This represents growth exceeding the percentage of 114%. Simultaneously, the organization presented substantial improvements in the member retention rates. It also expanded from 65 to 91 fitness clubs (Figure 8).

Figure 8. Health and wellness fitness center - Challenge, Solution, Results

Source: Apifon's case study report for health and wellness fitness center (2025, p.1)

The findings show that conversational AI reshapes competitive dynamics across many different industries, enabling omnichannel integration and, at the same time, promoting the management of centralized customer data. This is proven by the energy sector

use cases, which present an illustrative example of this exact transformation. According to the "*Energy Use Cases*" report, it is observed that the energy providers have the tendency to struggle even more with fragmented communication channels, customer acquisition challenges, real-time data management, and customer retention, and they do so while they are under conditions of increasing market competition and pressure concerning the pricing procedure. The AI-driven communication solutions that have been proposed include omnichannel communication systems that integrate SMS, Viber, WhatsApp, and email. This proposal came alongside customer segmentation, real-time data integration, and personalized messaging automation, too (Figure 9).

Figure 9. Energy Use Cases - Challenges and Solutions

Source: Apifon's case study report for energy sector (2025, p.3-4)

A similar pattern appears in the healthcare and diagnostic services sector. The "*Diagnostic Center Use Cases*" report gives the explanation that the healthcare providers tend to cope with patient communication efficiency, customer retention, data synchronization, and privacy compliance. In that context, the solutions that come from conversational AI address the above-mentioned issues, especially through omnichannel communication and centralized data integration, offering AI-driven customer segmentation

for personalized patient engagement. This means that conversational AI's adoption is no longer restricted to traditional retail or marketing sectors. On the contrary, it affects even more the industries that are characterized by operational complexity and by strict regulatory requirements and high service personalization needs, at the same time (Figure 10).

Figure 10. Diagnostic Center Use Cases - Challenges and Solutions

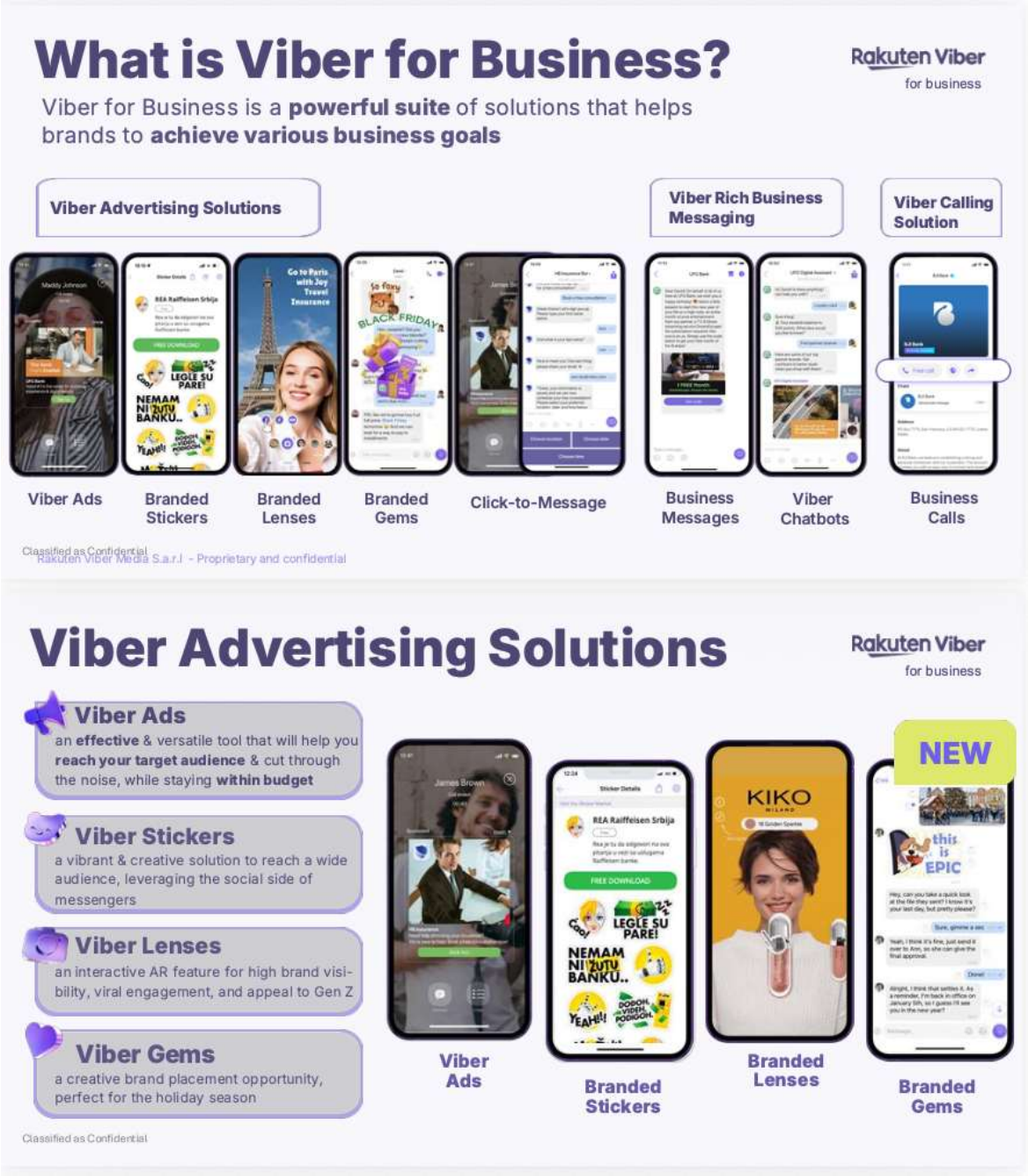
Source: Apifon's case study report for energy sector (2025, p.2-3)

Furthermore, the findings show that conversational AI contributes to the emergence of data-driven competitive models. Traditional communication strategies used to rely on broad demographic segmentation and standardized messaging campaigns. This does not happen with the AI-enabled communication environments, which are used to collect and analyze behavioral interaction data in real time. This gives the organizations the ability to optimize communication strategies dynamically, based on customer responses and their

existing purchasing behavior. Especially, the Kids Fashion Brand methodology presentation emphasizes the importance of "*real-time performance feedback loops*" and "*cross-channel attribution analysis*" in the adaptive campaign tuning and ROI measurement (Figure 6).

One additional finding is about the integration of conversational AI in broader digital transformation processes. According to Ioannis Terzakis, "*conversational AI will become a fundamental layer of digital interaction*", adding that "*just as mobile applications defined the previous decade, conversational interfaces may define the next one*" and that "*businesses that adopt conversational platforms early will likely gain significant advantages in customer engagement and operational efficiency*" (Appendix I, Q8, p.96). This answer suggests that conversational interfaces tend to function as universal interaction environments that have the capability of integrating customer communication, transactions, authentication, support, and personalization in a common and unique environment. Additionally, the banking and insurance use cases approve this observation, with a characteristic example, the report "*Viber for Business: Use Cases for Banking & Insurance Industries*", which shows how conversational technologies support customer communication through chatbots, secure messaging, business calls, and integrated payment functionalities (Figure 11).

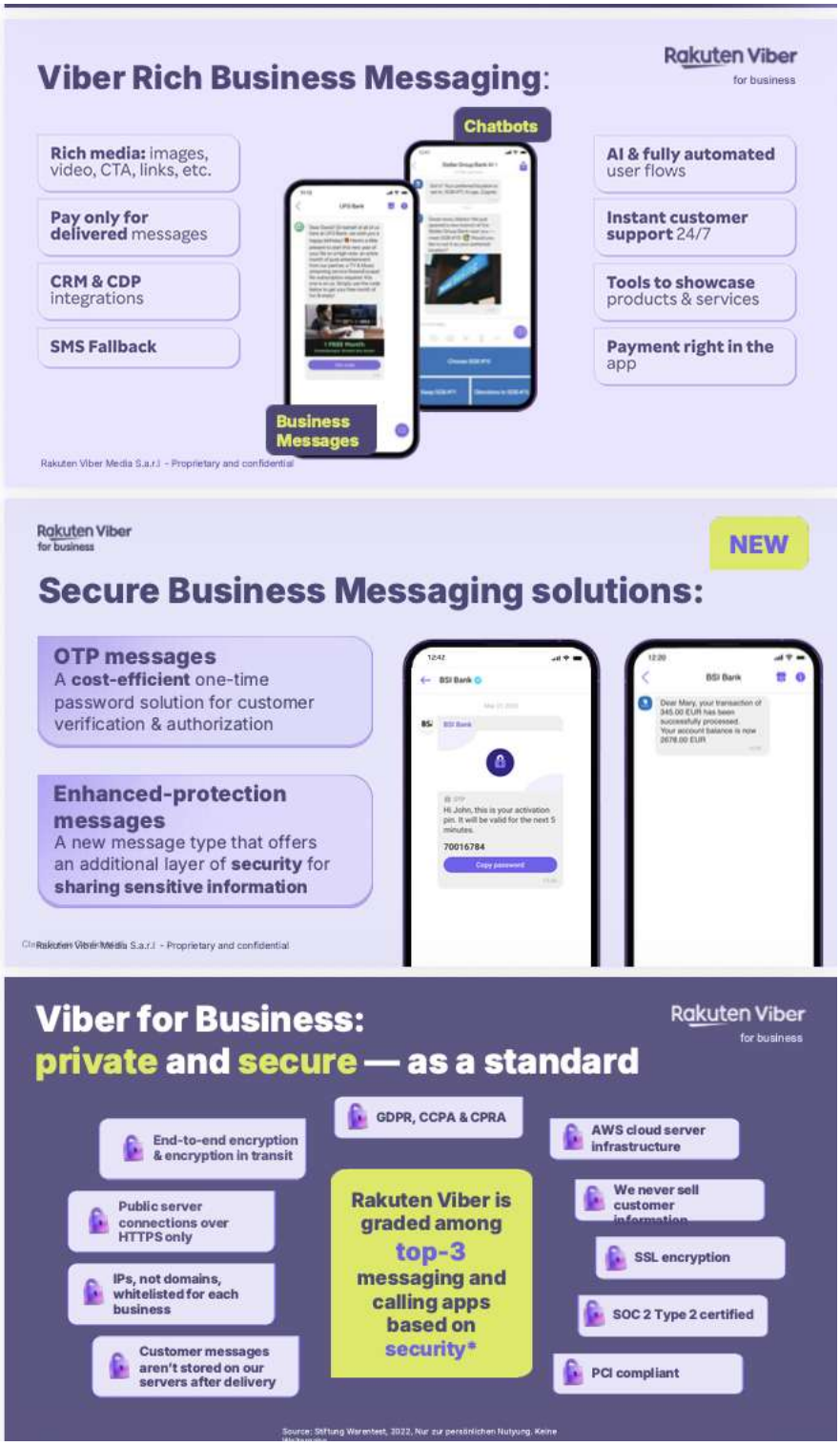
Figure 11. Viber for Business: Use Cases for Banking & Insurance Industries - Solutions



Source: Apifon's case study report for banking and insurance sector (2025, p.3-4)

The same report offers an explanation on how conversational messaging environments increasingly support identity verification. It also explains how conversational messaging environments increase customer support, upselling, and secure financial communication (Figure 12).

Figure 12. Viber for Business: Use Cases for Banking & Insurance Industries - Privacy & Security



Source: Apifon's case study report for banking and insurance sector (2025, p.7-9)

Finally, according to the cybersecurity interview that had been conducted with Apifon's Chief Information Security Officer (CISO), Kyprianos Vasilopoulos, when he was

questioned, "*Why is cybersecurity now considered a fundamental business requirement rather than an optional feature?*" his answer was the following: "*Because digital communication now sits at the center of business operations. If a messaging infrastructure fails or is compromised, the consequences extend far beyond IT systems. They can affect customer trust, regulatory compliance, and business continuity. For this reason, cybersecurity must be embedded into the design of the platform from the beginning*" (Appendix I, Q2, p.97).

4.2 Financial Findings

Most significant findings are about the reduction of customer acquisition and communication costs. Both are achieved through AI-driven messaging strategies. According to the "*Click-to-WhatsApp Ads: Metrics & Performance Highlights*" dataset report, organizations that have implemented conversational advertising campaigns ended up achieving cost-per-lead reductions of up to 50%. At the same time, the average Customer Acquisition Cost (CAC) decreased by an approximate percentage of 30% (Figure 3).

At this point, the Kids Fashion Brand case study also offers empirical proof that supports the above-mentioned observation. According to the "*Kids Fashion Brand Peak Awards Best Use of Data Campaign Results*" report, the implementation of targeted Viber campaigns created high financial returns across multiple campaign categories. The "*LOYALTY REWARDED*" campaign ended up with a Return on Advertising Spend (ROAS) of 111.01 and an ROI exceeding 11,000%. At the same time, it achieved a low Cost-Per-Click (CPC) of only €0.22. Similarly, the "*SHOES BAZAAR*" campaign achieved a CTR of 4.08%, while generating 1,269 clicks and, at the same time, produced a ROAS value exceeding 29 times the original investment (Table 3).

Even more, the findings show that conversational AI contributes to long-term value creation. It does so, especially, on the one hand through customer retention and on the other hand through customer lifetime value enhancement. According to Ioannis Terzakis: "*Messaging becomes strategic when it is integrated into the core customer journey. When messaging supports not only notifications but also purchasing, onboarding, authentication, and customer service, it becomes part of the company's value creation process. At that point, it affects multiple business functions simultaneously: marketing, sales, operations, and customer support. Organizations begin to measure their contribution not only through*

communication metrics but through revenue generation, operational efficiency, and customer retention" (Appendix I, Q2, p.95).

Considering the Health and Wellness Fitness Center's case study, it also offers quantitative support for this argument. According to the "*Health and Wellness Fitness Center Fitness Excellence*" report, the integrated messaging strategies' implementation, using Viber, SMS, and email, contributed to significant improvements, which concerned both membership growth and customer retention. It is not a coincidence that Health and Wellness Fitness Center increased its customer base from 70,000 to 150,000 members, and at the same time, it expanded its physical business network from 65 to 91 fitness clubs (Figure 8).

One further important financial finding is about the role that messaging automation plays in the reduction of operational costs. According to Apifon's CEO, Ioannis Terzakis, one of the main financial benefits of conversational AI lies in "*customer service automation where conversational bots can reduce the volume of human interactions*" (Appendix I, Q3, p.95). He mentioned the following: "*First is operational efficiency, particularly in customer service automation, where conversational bots can reduce the volume of human interactions. Second is conversion improvement, as conversational journeys simplify purchasing processes and reduce friction for customers. Third is customer lifetime value, since personalized interactions can strengthen relationships and increase repeat engagement. When organizations measure these factors collectively, conversational AI often delivers strong financial returns*" (Appendix I, Q3, p.95). Therefore, he mentioned an operational automation that reduces labor intensity and, at the same time, gives organizations the ability to allocate their human resources strategically toward their higher-value activities.

The banking and insurance use cases support the above-mentioned efficiencies clearly. The "*Viber for Business: Use Cases for Banking & Insurance Industries*" report explains that conversational messaging infrastructures support customer service automation and that they, at the same time, support instant support availability and payment integration in the messaging applications (Figure 11). Therefore, this means that conversational AI generates financial benefits through communication scalability. It is a fact that the AI-enabled messaging systems allow organizations to scale communication activities, and they might achieve this without proportionally increasing their labor and infrastructure costs. At the time when the conversational systems are implemented and integrated into the existing

organizational infrastructures, additional customer interactions are able to often be managed at relatively low levels of marginal cost.

It is about a scalability advantage that becomes relevant in industries that need continuous customer engagement. The retail use cases, which are presented in the "*Retail Viber for Business Use cases*" of the September 2023 report, showed how messaging automation supports multiple business objectives (Figures 2 and 7). The "*Click-to-WhatsApp*" report, in the section of the performance findings, further supports this conclusion. The dataset reports that 70% of users engage with conversational advertisements within the first hour of message delivery. At the same time, customer satisfaction rates reached about 90% among businesses using conversational messaging campaigns. Furthermore, 85% of customers reportedly preferred resolving issues through WhatsApp communication channels (Figure 13).

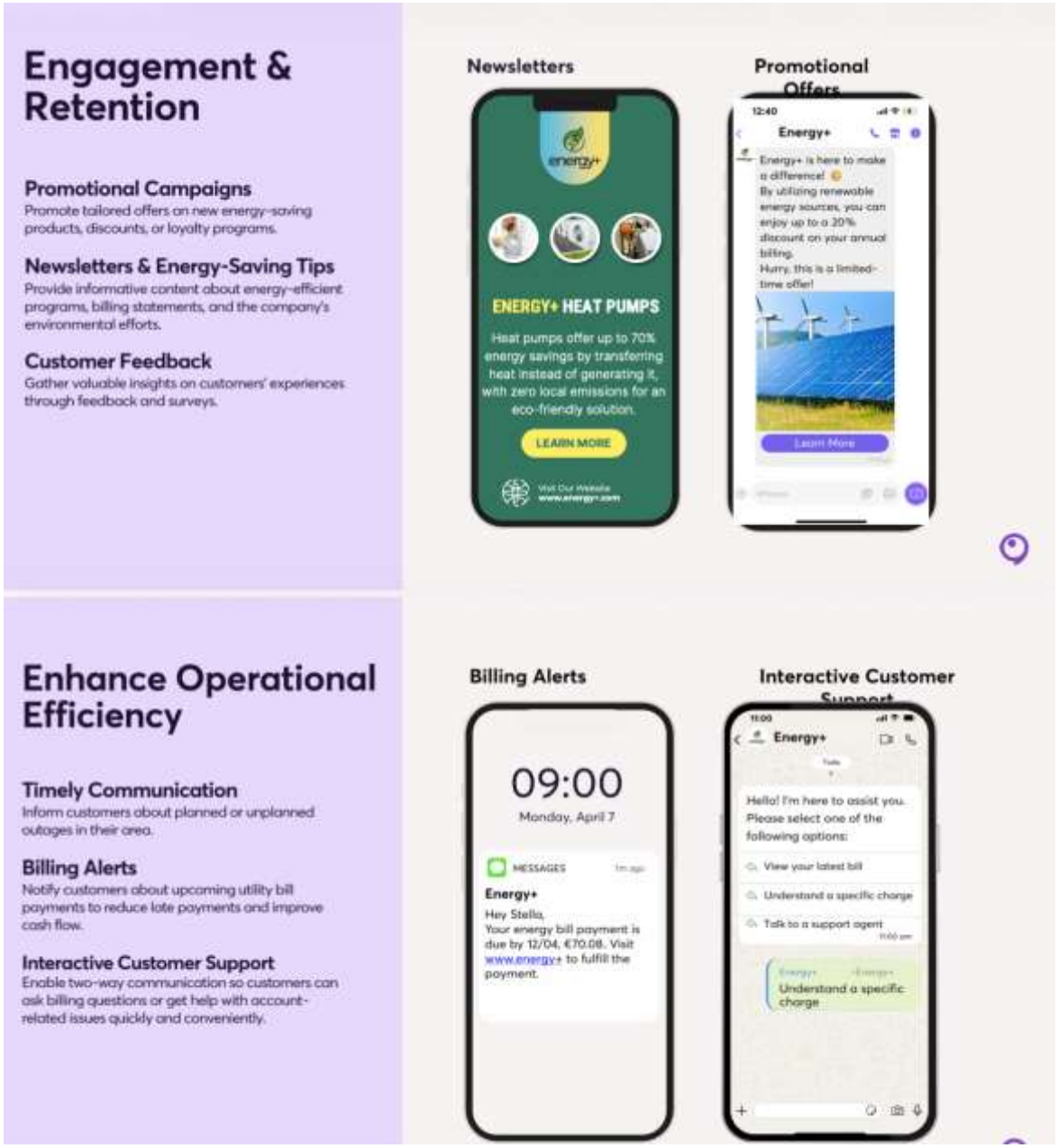
Figure 13. Click-to-WhatsApp performance

Source: Apifon's "Click-to-WhatsApp" performance report (2024, p.2)

Another economic finding concerns the role that conversational AI plays in reducing the cost of communication failure and improving delivery efficiency. The Health and Wellness Fitness Center case study emphasizes the use of Viber-to-SMS redirection

mechanisms to ensure that there is no interruption in the delivery of messages to customers (Figure 8). This is an infrastructure optimization that minimizes any interruptions that may occur in the communication of businesses with their customer base. From an economic perspective, increased delivery reliability leads to higher levels of campaign effectiveness. Furthermore, it reduces the revenue losses that a business would incur if it made unsuccessful attempts to communicate with its customers. Even in the case of the energy and healthcare sectors, conversational AI appears to contribute to operational optimization. These are cases that show that conversational AI also increases cost efficiency. These positive results come through central data integration; a process achieved using AI systems. The "*Energy Use Cases*" report explains that AI-based communication systems support real-time customer updates, payment management, and customer expectation management (Figure 14).

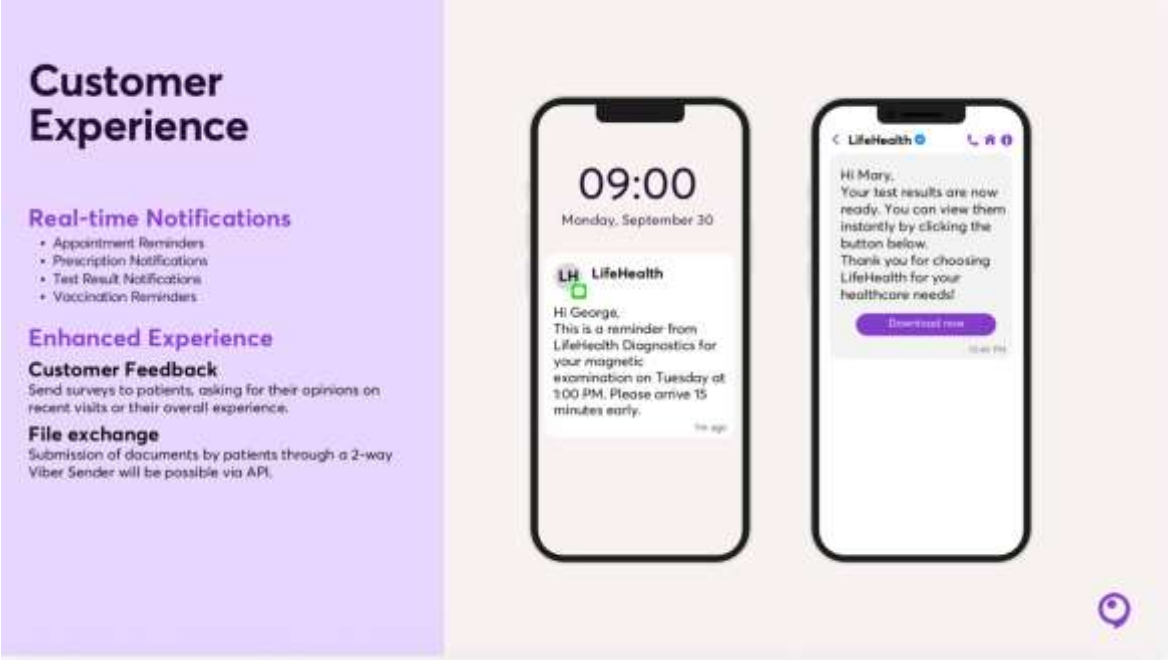
Figure 14. Energy Use Cases - Results



Source: Apifon's case study report for energy sector (2024, p.7-8)

Similarly, the "*Diagnostic Centers Use Cases*" report showed how centralized data collection and AI-driven segmentation improve patient communication and retention efficiency (Figure 15).

Figure 15. Diagnostic Centers Use Cases - Customer Experience



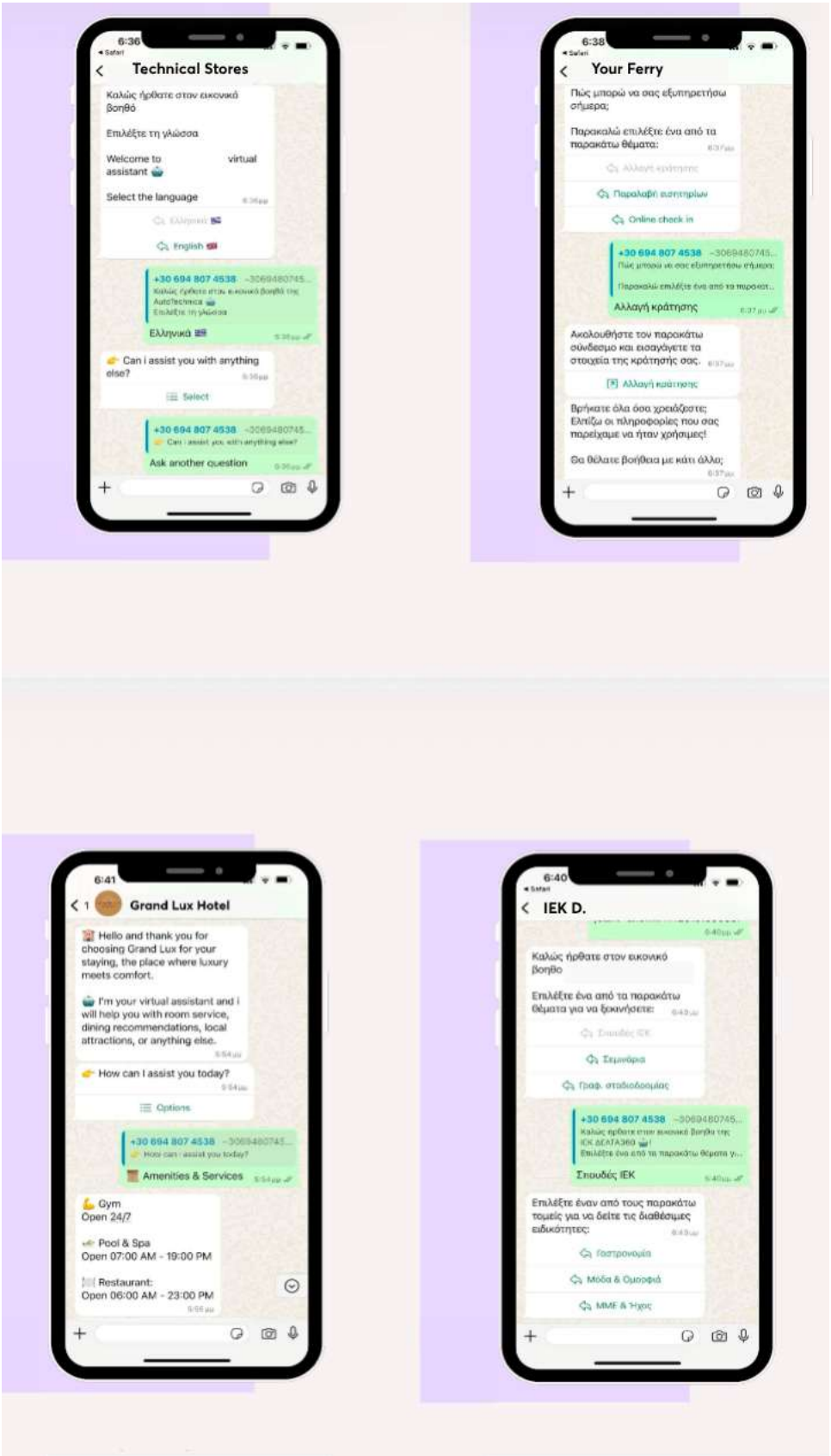
Source: Apifon's case study report for diagnostic centers (2024, p.8)

Also, the comparative analysis between pre-automation and post-automation communication approaches shows the existence of strategic and financial differences. The Kids Fashion Brand's case study is a characteristic example in that case, which contrasts traditional bulk messaging approaches with AI-supported segmentation and with personalized communication systems. This transition from bulk communication to intelligent segmentation fundamentally changes financial performance dynamics (Table 3). The findings further show that the AI-driven messaging environments improve the marketing investments' measurability and accountability. At this point, the methodology that had been followed in the case of Kids Fashion Brand specifically includes "*cross-channel attribution analysis*" and "*real-time performance feedback loops*" as its main components of campaign optimization and ROI evaluation (Figures 5, 6, and Table 3).

One additional important financial implication is the relationship that exists between conversational AI and revenue generation. According to Apifon's CEO Ioannis Terzakis, conversational interfaces increasingly support revenue-generating processes, including purchasing, onboarding, and customer conversion activities, as he mentioned that "*When messaging supports not only notifications but also purchasing, onboarding, authentication, and customer service, it becomes part of the company's value creation process*" (Appendix

I, Q3, p.95). It is a fact that the messaging environments are no longer limited to information delivery. On the contrary, they even facilitate transactional interactions, directly in communication channels. It is about an integration that, as it is already mentioned, reduces customer friction and shortens the purchasing procedures, while they increase conversion probabilities and revenue performance. Finally, the WhatsApp demos show how conversational systems support operational simplification across sectors, which include, for instance, hospitality, transportation, and retail (Figures 16 and 17). Figure 16 presents WhatsApp Demos about Technical Stores, Your Ferry, Grand Luc Hotels, and IEK D.

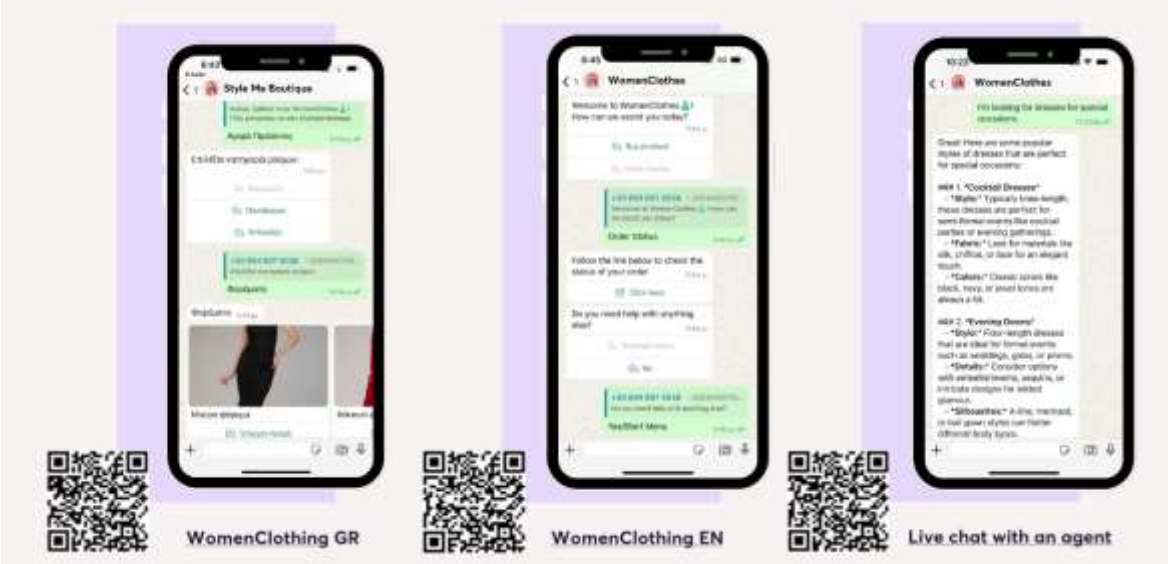
Figure 16. WhatsApp Demos (1)



Source: Apifon's WhatsApp Demos report (2024, p.1)

Figure 17 presents WhatsApp Demos about Style Me Boutique and Women Clothes.

Figure 17. WhatsApp Demos (2)



Source: Apifon's WhatsApp Demos report (2024, p.2)

4.3 Organizational Findings

The findings show that conversational AI, combined with messaging automation technologies, creates a substantial organizational transformation. This is a benefit that goes beyond the purely technological or operational improvements that are observed. First, an organizational finding worth analyzing concerns the transition observed from individual departmental communication initiatives to cross-functional collaboration models, which are arguably more integrated. According to the answer given by Ioannis Terzakis in the interview, the adoption of conversational AI cannot continue to remain the sole responsibility and control of IT or marketing departments. He characteristically stated, "*One of the most important changes is cross-functional collaboration. Messaging initiatives cannot belong only to IT or marketing departments. They require alignment across customer service, product development, compliance, and data analytics*" (Appendix I, Q7, p.96). It is about an opinion that undoubtedly reflects an important organizational shift. The reason is

that conversational technologies tend to have an even greater influence on many different business functions.

Furthermore, the findings that have emerged from Apifon's organizational model are in complete alignment with this interpretation. If we consider Apifon's profile and the real use cases analyzed in the previous sections, we are led to the conclusion that Apifon integrates omnichannel communication systems. It is also a company that integrates CRM, artificial intelligence systems that help in audience segmentation and real-time data analytics. All these systems operate in unified operating environments, as mentioned in the previous sections of this chapter. Therefore, it is about the formation of an integrated infrastructure. After the integration of such infrastructures, the organizational communication flows of a company change. This is because messaging systems tend to function as central strategic infrastructures. Thus, they are no longer isolated marketing technologies.

A further important organizational finding is about the significant role of data-driven decision-making in AI environments. The Kids Fashion Brand's case study specifically shows how conversational AI adoption transformed the organizational communication logic. There was a transformation from the traditional mass messaging approaches that were followed before, toward intelligent segmentation. This transformation also included behavioral analytics. According to the "*Kids Fashion Brand Peak Awards Best Use Of Data*" report, that was presented in section 4.1, Kids Fashion Brand stopped the integration of "*bulk messaging*" practices. These practices were characterized by low engagement and poor customer experience. Therefore, Kids Fashion Brand moved toward personalized communication strategies. These newly integrated strategies were based on customer segmentation intelligence. They also included real-time data utilization (Figure 5, Figure 6, and Table 3).

The methodology that was followed by the Kids Fashion Brand's further emphasizes the organizational importance of "real-*time performance feedback loops*". It also emphasizes the importance of "*dynamic audience modeling,*" and "*cross-channel attribution analysis*" (Figure 6). All these processes need continuous organizational coordination. There is a need for coordination between the data analytics teams, the marketing departments, the communication managers, and the existing organizational technological infrastructures. Therefore, the conversational AI's adoption needs and promotes organizational models that are more agile. These models are characterized by

continuous monitoring. They also include rapid decision-making, while at the same time, there is a need for adaptive operational adjustment.

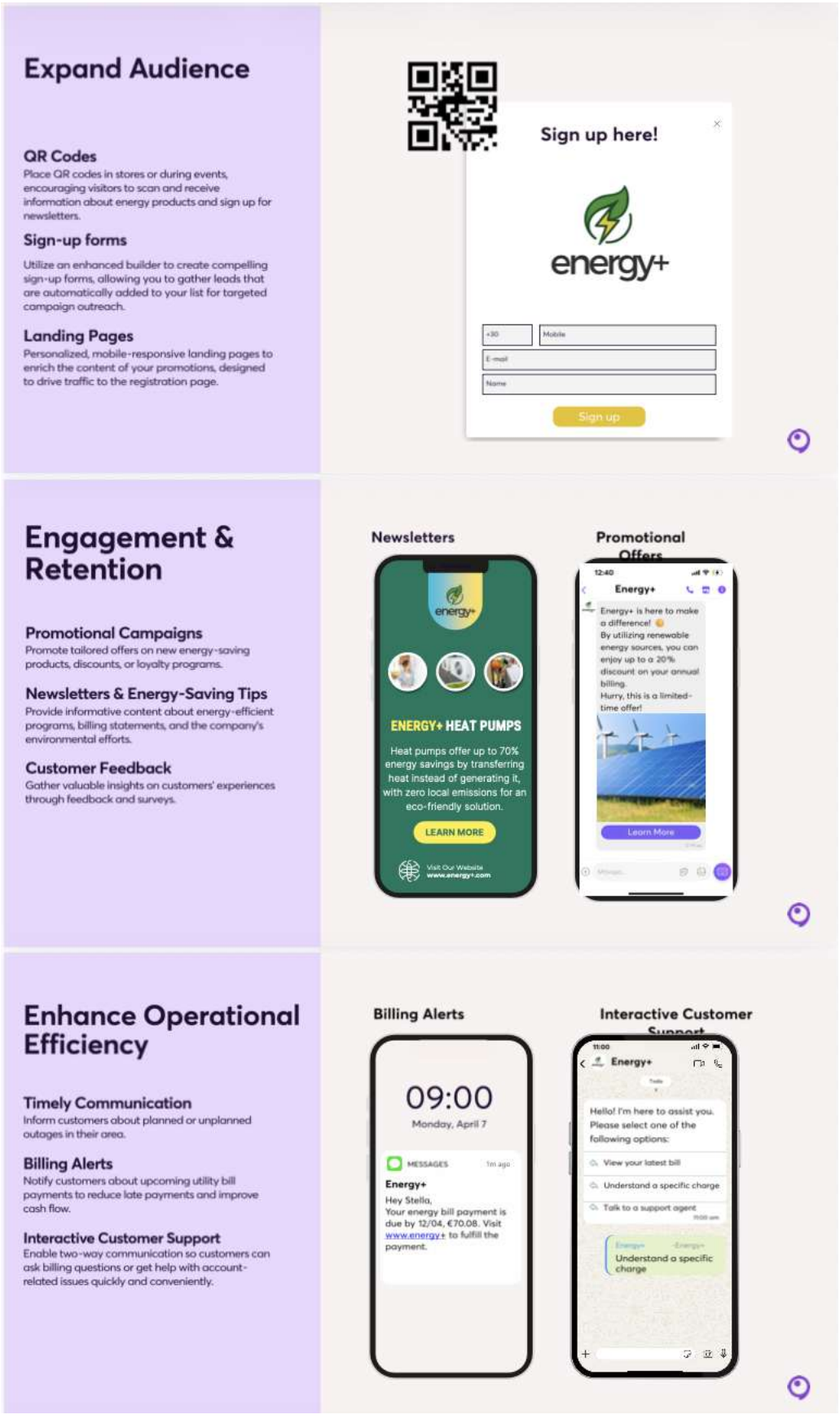
One additional finding is about human resources transformation. This transformation is aligned with the emergence of new organizational roles. These roles are associated with the AI-enabled communication systems. The findings show that conversational automation modifies workforce responsibilities to higher-value strategic activities. According to Apifon's CEO, Ioannis Terzakis, conversational AI automates a significant portion of repetitive customer interactions. He stated that this happens especially within customer service operations. However, it is about automation that increases the importance of strategic oversight. It also increases the necessity of customer journey design and compliance supervision. Therefore, communication optimization is needed. This organizational transition means that organizations increasingly need specialists who might be capable of managing conversational platforms and supervising AI-driven communication strategies. In this context, conversational AI contributes to the emergence of hybrid organizational roles. This is justified by Apifon's CEO, Ioannis Terzakis, who characteristically mentioned that: "*They require alignment across customer service, product development, compliance, and data analytics*" (Appendix I, Q7, p.96).

Also, Apifon's CEO Ioannis Terzakis specifically pointed that organizations evaluate conversational AI investments "*not only through communication metrics but through revenue generation, operational efficiency, and customer retention*" (Appendix I, Q2, p.95). This means a wider organizational shift to performance models. These new integrated models place emphasis on customer-centric value creation. They also need to emphasize long-term relationship management. The interview findings also show that organizational success in conversational AI's adoption depends on the ability to create unified enterprise communication strategies. According to Apifon's CEO, Ioannis Terzakis, messaging platforms become strategic assets. This happens in cases where they are integrated into the "*core customer journey*" (Appendix I, Q2, p.95). This means that in these cases they support many different functions. For instance, these functions include onboarding, authentication and purchasing processes. It is about an integration that needs organizational coordination across business units that were previously separated. It also encourages the development of operational models that are more customer-centric.

Additionally, by observing the findings from the retail and energy sector use cases, they further support the above observation. The "*Retail Viber for Business Use cases*" report

of September 2023 explains that messaging systems support multiple organizational objectives. The same report states that they include awareness generation and lead acquisition. Cart abandonment reduction, upselling, cross-selling, and customer loyalty enhancement are also reported (Figures 2 and 7). Similarly, the "*Energy Use Cases*" presentation points out how conversational infrastructures support customer acquisition and how they further support payment management, customer retention, and operational communication coordination (Figure 18).

Figure 18. Energy Use Cases - Practical results



Source: Apifon's case study report for energy sector (2024, p.6-8)

Therefore, conversational AI encourages the organizational convergence that exists between the functions of communication, sales, customer service, and operational management. These fields are not functioning independently. They need to operate through shared communication ecosystems. These ecosystems might be supported by centralized customer data. This data needs to be provided at an organizational level. One further important organizational finding is about the integration of cybersecurity and compliance considerations into organizational governance structures. According to the interview, that was conducted with Apifon's CISO, Kyprianos Vasilopoulos, conversational messaging infrastructures increasingly process sensitive customer information. He characteristically mentioned that: "*The risk environment has become significantly more complex. Messaging platforms now handle authentication, financial transactions, and sensitive customer data. At the same time, cyber attackers increasingly use artificial intelligence to automate and scale their attacks. This means that messaging providers must adopt proactive security strategies rather than reactive protection mechanisms*" (Appendix I, Q1, p.97).

Kyprianos Vasilopoulos also emphasized that cybersecurity must be "*embedded into the design of the platform from the beginning*" (Appendix I, Q2, p.97). He justifies this by stating that messaging infrastructures affect customer trust. He also mentioned that they directly affect business continuity and regulatory compliance. This shows that conversational AI's adoption needs organizations to integrate security governance into their communication strategy. Security governance must be integrated into their digital transformation planning processes, too. The organizational implications of this requirement are substantial. Business entities tend to need specialized governance structures. They need structures that are able to coordinate technology management and compliance monitoring. They also require structures that might be able to coordinate risk assessment and operational resilience. Also, Apifon's CISO Kyprianos Vasilopoulos mentioned an organizational need. He stated that "*Organizations must ensure that personal data is collected and processed transparently and only for legitimate purposes. Data minimization and access control are also critical principles. Furthermore, conversational systems must ensure that sensitive information is stored securely and that users have clear visibility into how their data is processed*" (Appendix I, Q3, p.98).

The Viber Business documentation supports this perspective. It highlights the encryption mechanisms and GDPR compliance frameworks. It additionally highlights the secure identity management systems, while emphasizing the existence of secure cloud infrastructures. These are presented as integral components of the enterprise messaging ecosystems. As Apifon's CISO Kyprianos Vasilopoulos also mentioned: "*Low-cost providers often rely on minimal infrastructure and limited security capabilities. This may be sufficient for simple communication use cases, but not for enterprise-grade operations. Organizations must evaluate whether their provider can deliver high availability, strong encryption, and secure identity management"* (Appendix I, Q4, p.98). Also, according to Apifon's CISO, Kyprianos Vasilopoulos, "*security systems will increasingly incorporate artificial intelligence themselves, enabling faster detection of threats and more adaptive defense mechanisms*," and he further stated that "*trust will become one of the most important competitive advantages for digital communication providers*" (Appendix I, Q8, p.99). This exact observation is organizationally important. The reason lies in the fact that it implies that business entities are obliged to manage communication infrastructures. They have to do so, on the one hand for operational efficiency, and on the other hand, for their reputational reliability.

Besides, Apifon's CISO Kyprianos Vasilopoulos also stated that "*regulations such as the Digital Operational Resilience Act (DORA) introduce stricter requirements for organizations operating in sensitive sectors such as finance*" and he added that "*these regulations require technology providers to demonstrate robust risk management, transparency, and operational resilience*" (Appendix I, Q7, p.99). According to his point of view, "*in practice, this means that security must be integrated into both technology and governance frameworks*" (Appendix I, Q7, p.99). Therefore, organizations need to invest in secure communication infrastructures. They also need to invest in continuous monitoring systems and anomaly detection mechanisms. Furthermore, they need to integrate compliance governance frameworks. This was also proposed by Apifon's CISO, Kyprianos Vasilopoulos, when he characteristically stated that: "*Organizations must implement multiple layers of protection, including authentication mechanisms, monitoring systems, and anomaly detection. Penetration testing and regular security audits are also essential. Security is not a one-time activity but an ongoing process of monitoring and improvement*" (Appendix I, Q6, p.98). As for the way through which the enterprise cloud infrastructure contributes to security, Apifon's CISO, Kyprianos Vasilopoulos, mentioned that:

"*Enterprise cloud platforms such as Microsoft Azure offer advanced security mechanisms including identity management, continuous monitoring, and global redundancy. These features help ensure that messaging systems remain resilient against both technical failures and cyber threats*" (Appendix I, Q5, p.98).

Finally, the existing findings show that conversational AI contributes, on the one hand, to organizational scalability and, on the other hand, to internationalization opportunities. This is proven by the Viber Business documentation. This report highlights the platform's presence across more than 190 countries and 44 languages. It is also mentioned that it has over one billion downloads globally (Figure 7). These global communication infrastructures offer organizations the ability to increase their implemented customer communication strategies internationally. They can do so without increasing their organizational complexity.

4.4 Practical Business Use Cases

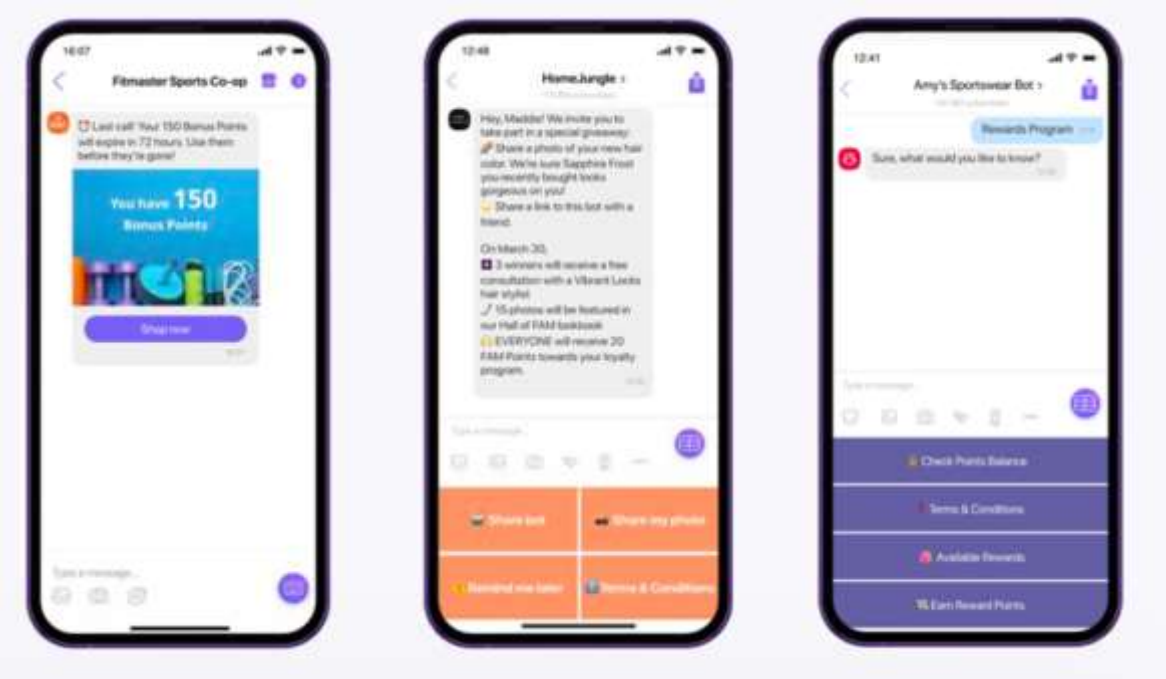
Observing the "*WhatsApp Demos*" presentation, there are multiple practical implementations. They include, for example, ferry transportation services and hospitality services. Live customer support environments are also included. These are examples that show how conversational interfaces support multilingual communication. The same examples also show how automated customer assistance is equally supported. In addition, they show that conversational interfaces also increase real-time interaction management. This is succeeded directly within WhatsApp communication channels (Figure 15 and Figure 17). An additional and equally important practical application is for booking and reservation systems. The ferry transportation case (Figure 15) shows how customers can manage ferry reservation services. This case shows how customers can achieve this directly through conversational interfaces. This means that they do not need to visit complex websites. Instead of these, the users can interact with guided conversational flows which are capable of supporting booking management, ticket modification, and all the processes that include customer assistance, and they are integrated in the messaging environment itself.

The hospitality and hotel communication demonstrations further support this observation (Figure 15). According to the WhatsApp use-case examples, hospitality organizations use conversational systems, so as for them to be able to support customer communication, service requests, and reservation assistance, and they achieve this through

automated messaging environments. These systems offer hospitality companies to keep their continuous communication availability, and at the same time, they have the capability to reduce their dependency on manual support processes and traditional call-center infrastructures.

In addition, the retail use cases also give extensive evidence that supports the above-mentioned facts. The "Retail *Viber for Business Use cases*" report of September 2023 demonstrates how conversational systems support the digital marketing funnel's multiple stages. This includes awareness generation, customer interest stimulation, conversion optimization, and customer loyalty management. In further analysis, conversational messaging supports cart abandonment reduction, upselling, cross-selling, recurring purchases, and personalized customer experience management (Figures 19, 20, 21, 22, and 23). Figure 19 presents cases about build and support loyalty programs.

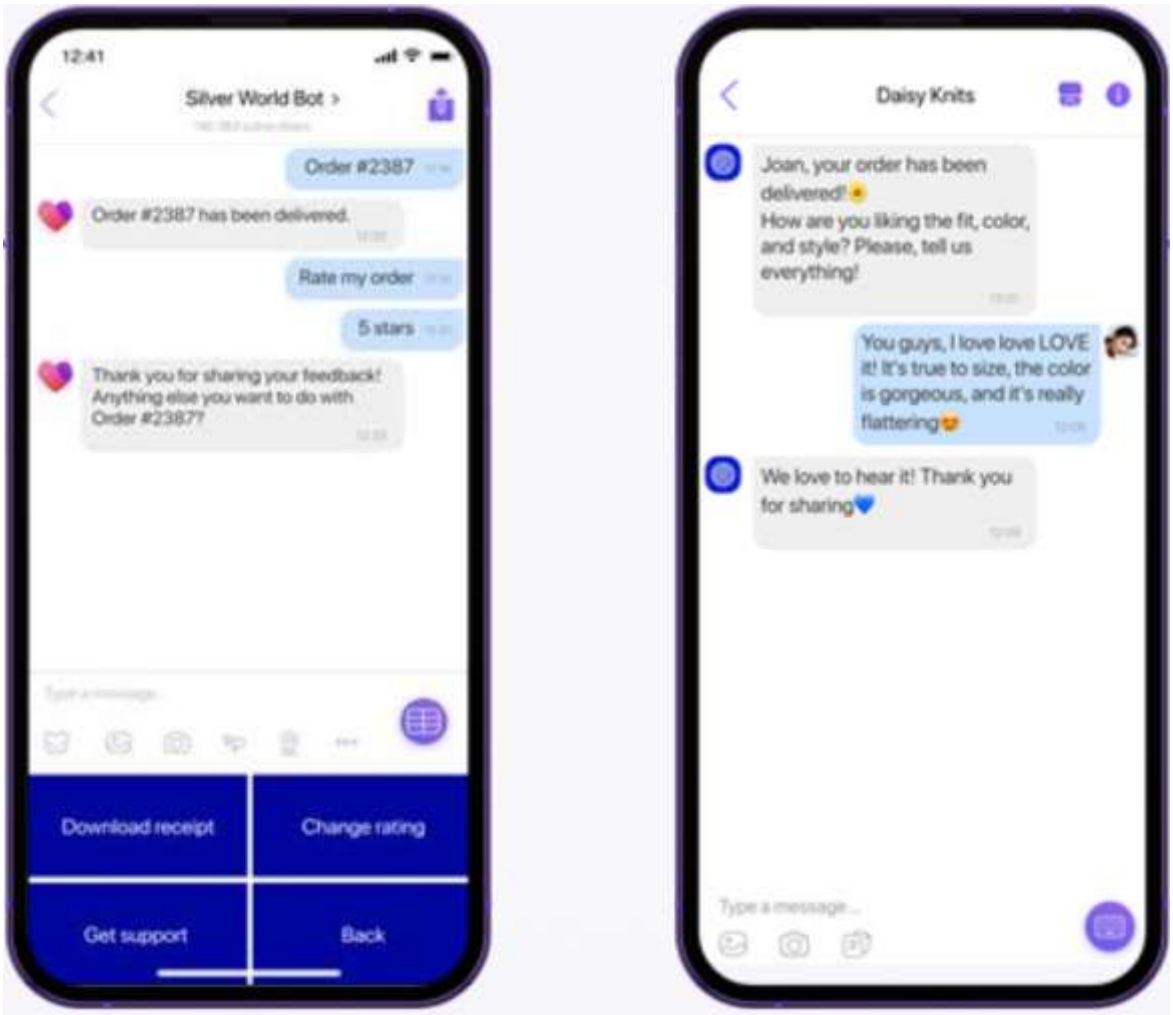
Figure 19. Build and support loyalty programs.



Source: Apifon's report "Retail Viber for Business Use cases" (2023, p. 20)

Figure 20 presents cases about achieving customers' awareness though customers' feedback.

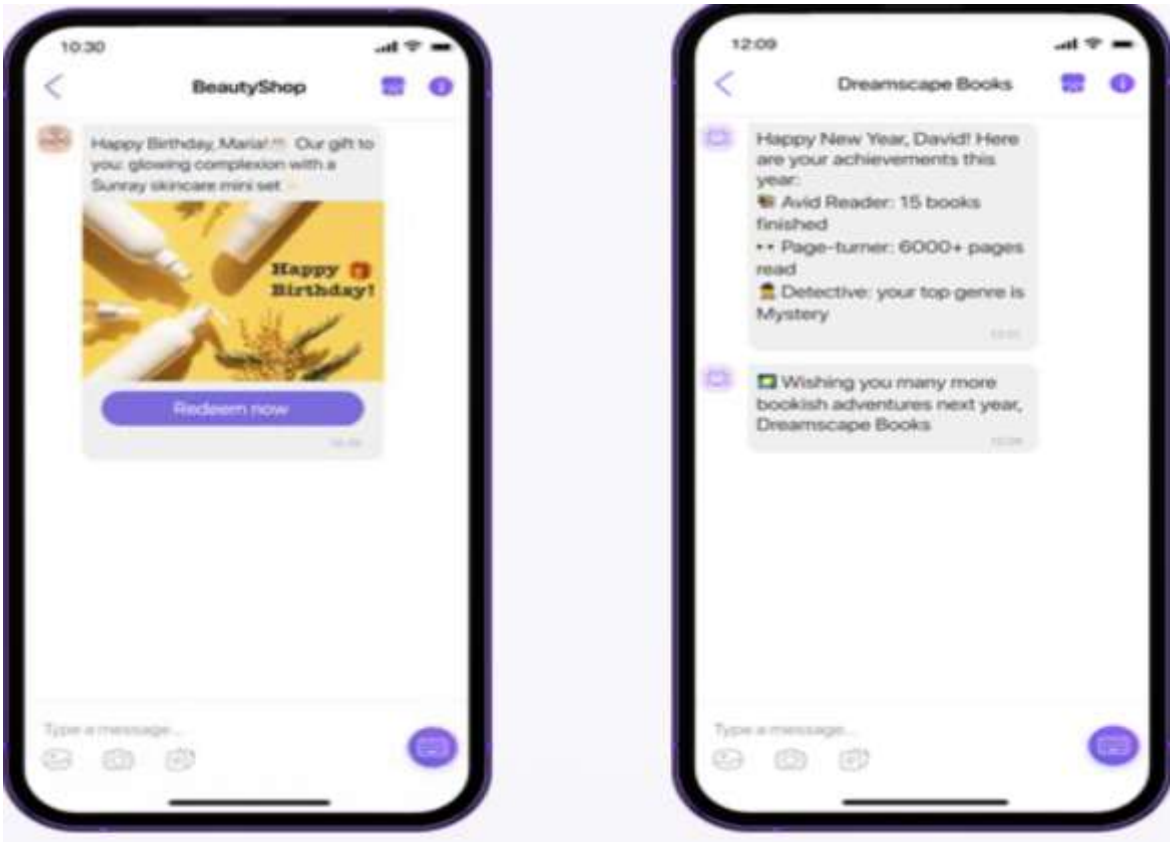
Figure 20. Customer awareness through customer feedback



Source: Apifon's report "Retail Viber for Business Use cases" (2023, p. 21)

Figure 21 presents cases about achieving customers' awareness though personalized communication.

Figure 21. Customer awareness through personalization



Source: Apifon's report "Retail Viber for Business Use cases" (2023, p. 22)

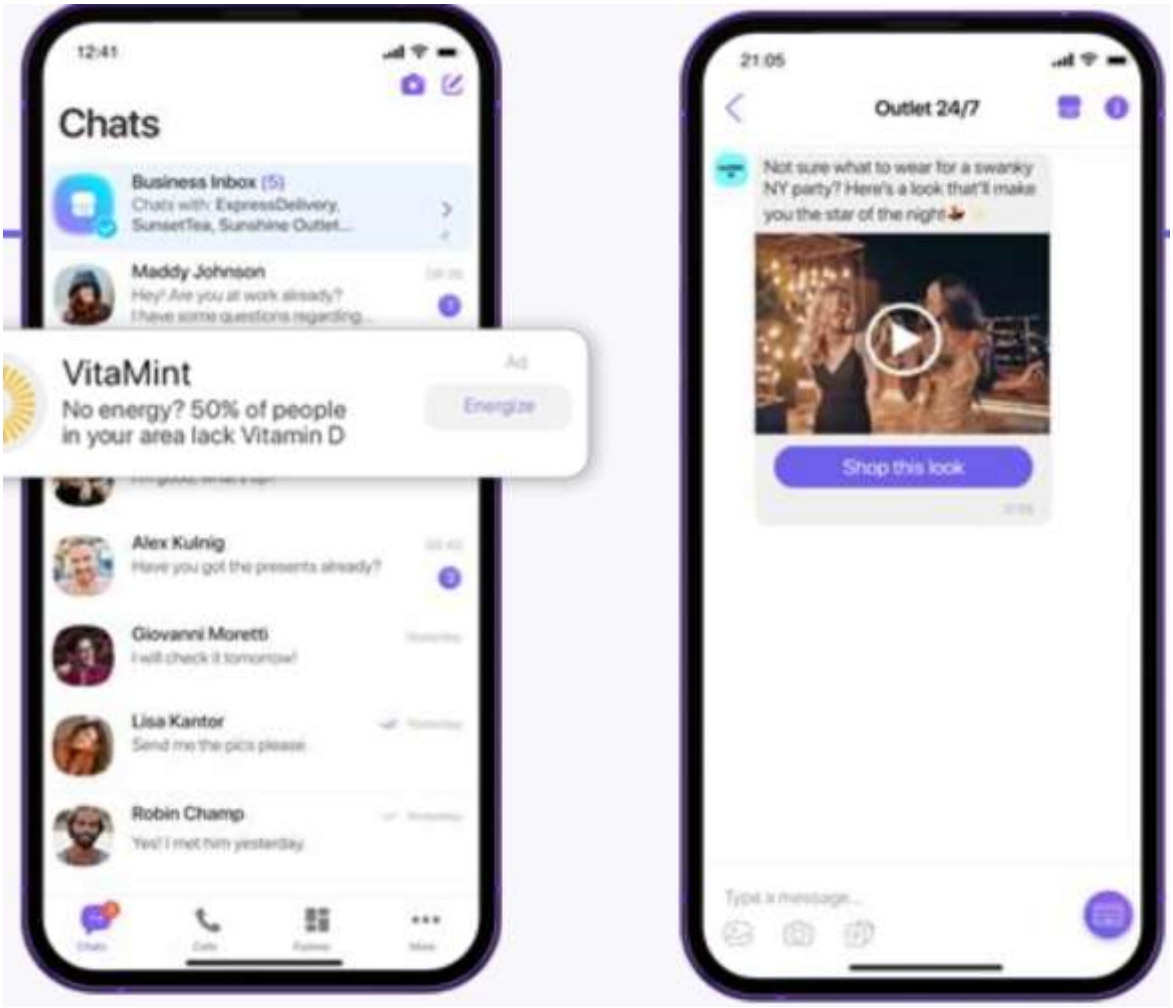
Figure 22 presents cases about increasing customers' interest though selling and cross-selling.

Figure 22. Increasing customers' interest by selling and cross-selling

Source: Apifon's report "Retail Viber for Business Use cases" (2023, p. 18)

Figure 23 presents cases about achieving customers' interest and re-engagement.

Figure 23. Customer's re-engagement and interest



Source: Apifon's report "Retail Viber for Business Use cases" (2023, p. 14)

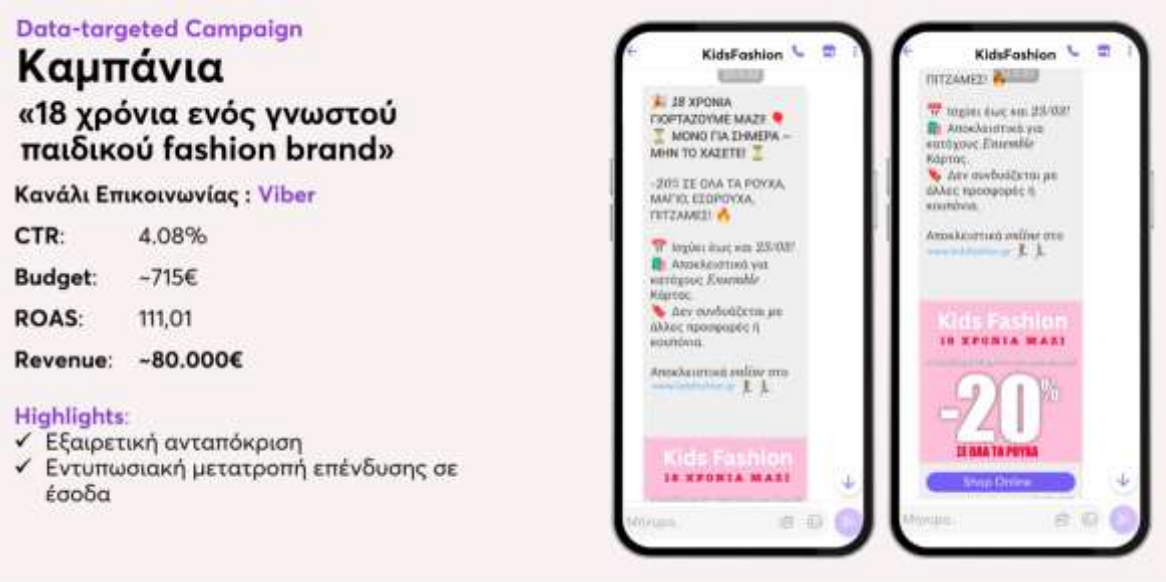
Furthermore, one additional important operational finding is the role of conversational messaging in reducing cart abandonment rates (Figure 24). Because traditional e-commerce processes tend to lose customers during the checkout stages, conversational AI systems face this exact challenge, and they do so through real-time reminders, alongside personalized product suggestions and simplified purchasing processes that are communication-based.

Figure 24. Reduction of cart abandonment rates

Source: Apifon's report "Retail Viber for Business Use cases" (2023, p. 17)

Further cases that are worth mentioning those of Kids Fashion Brand. As it is observed, the "*18 Years Kids Fashion Brand*" campaign shows the effectiveness that personalized Viber messaging has in customer engagement and revenue generation, at the same time. After following a targeted promotional communication and after integrating a direct call-to-action, this specific campaign achieved a CTR of 4,08%. It also generated about €80,000 in revenue, accompanied by a relatively limited budget for supporting this specific campaign (Figure 25).

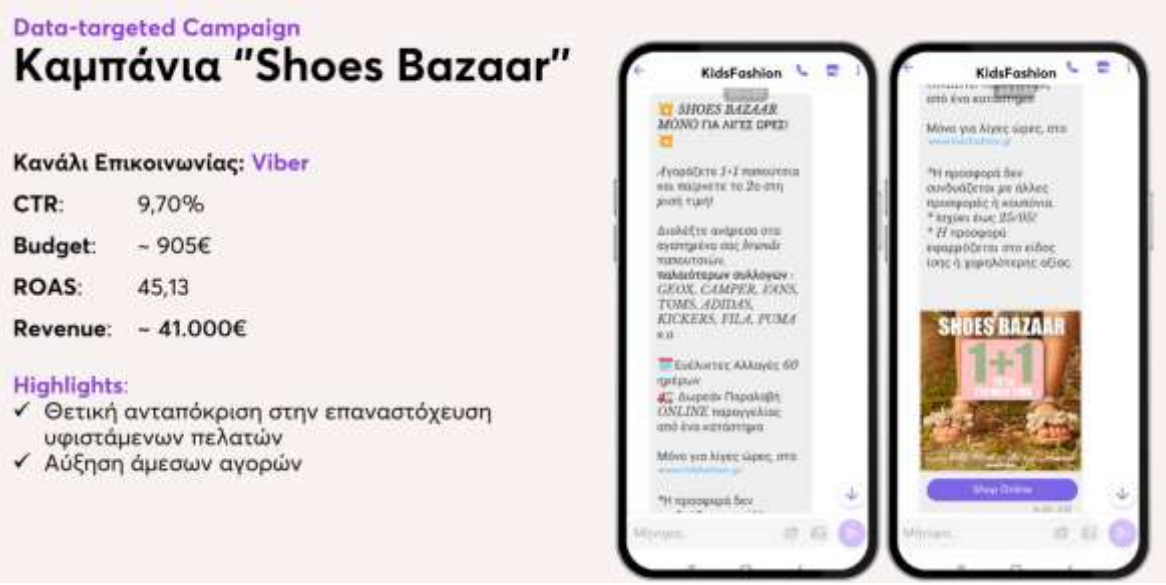
Figure 25. Campaign "18 Years Kids Fashion Brand"



Source: Apifon's Campaign "18 Years Kids Fashion Brand"

Then, the "*Shoes Bazaar*" campaign also shows the retargeting strategies and time-sensitive promotional messaging's effectiveness, while they are implemented in conversational commerce environments. After leveraging personalized Viber communication and direct shopping interaction, this specific campaign achieved a high Click-Through Rates (CTR) of 9,70%. Even more, this campaign created €41,000 in revenue (Figure 26).

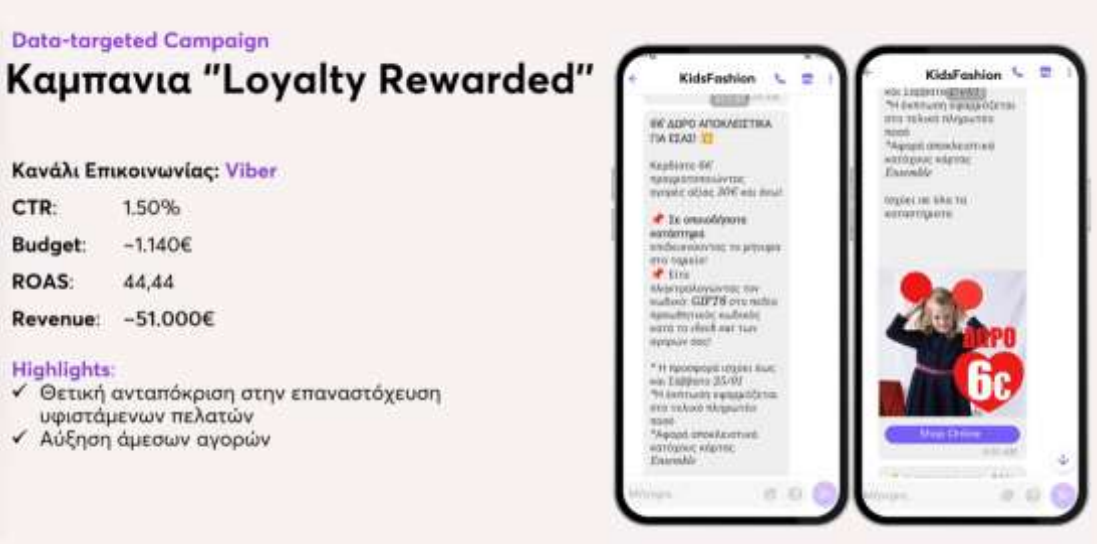
Figure 26. "Shoes Bazaar" Kids Fashion Brand campaign



Source: Apifon's Campaign "Shoes Bazaar"

Then, the "*Loyalty Rewarded*" campaign emphasizes the strategic importance that both customer retention and loyalty-focused communication strategies. It is a campaign that is based on personalized reward-based messaging that targets the existing customers of Kids Fashion Brand. After all, this campaign generated approximately €51,000 in revenue. It also maintained an efficient ROAS performance (Figure 27).

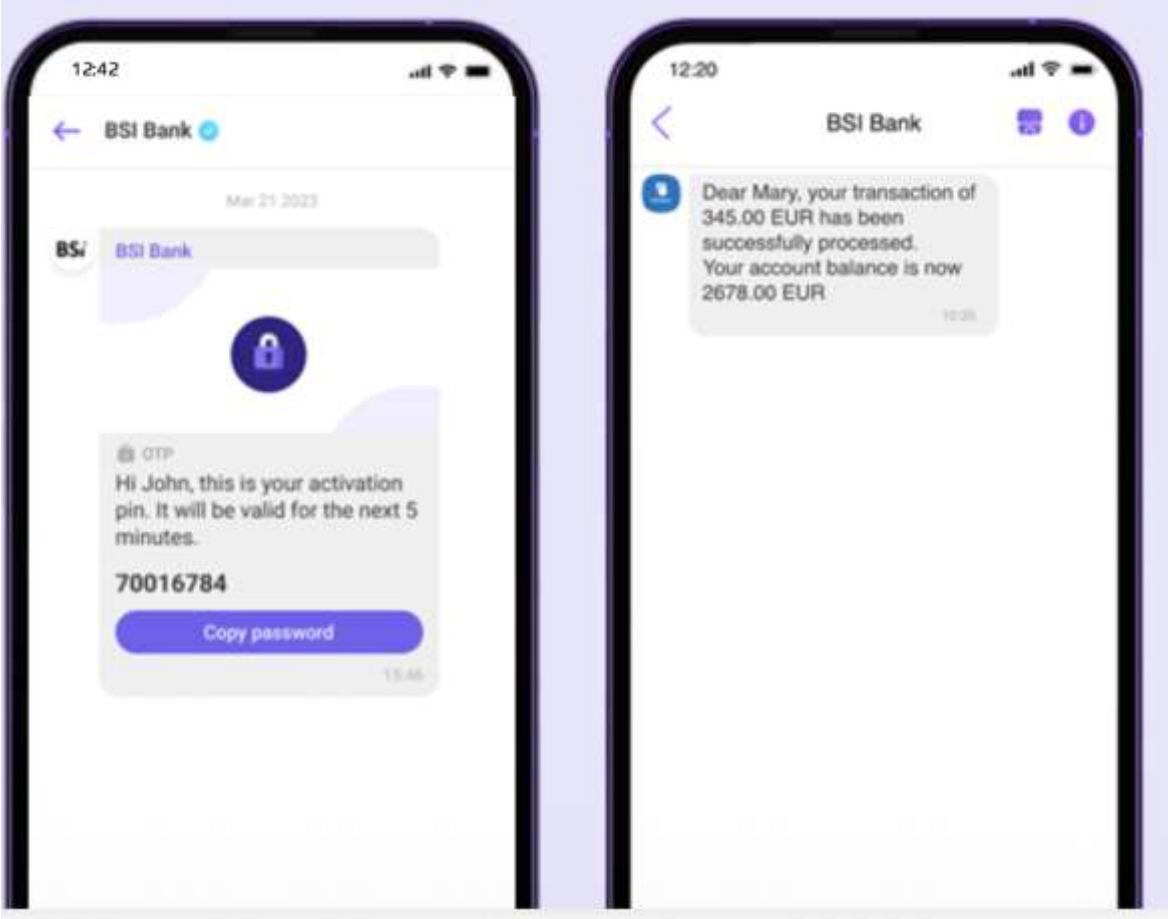
Figure 27. "Loyalty rewarded" Kids Fashion Brand campaign.



Source: Apifon's Campaign "Loyalty Rewarded"

The banking and insurance use cases also prove the operational transformation. According to the "*Viber for Business: Use Cases for Banking & Insurance Industries*" presentation, conversational systems support customer verification, authentication procedures, automated communication flows, and integrated customer support mechanisms (Figures 28 and 29). Figure 28 presents cases about banking secure solutions.

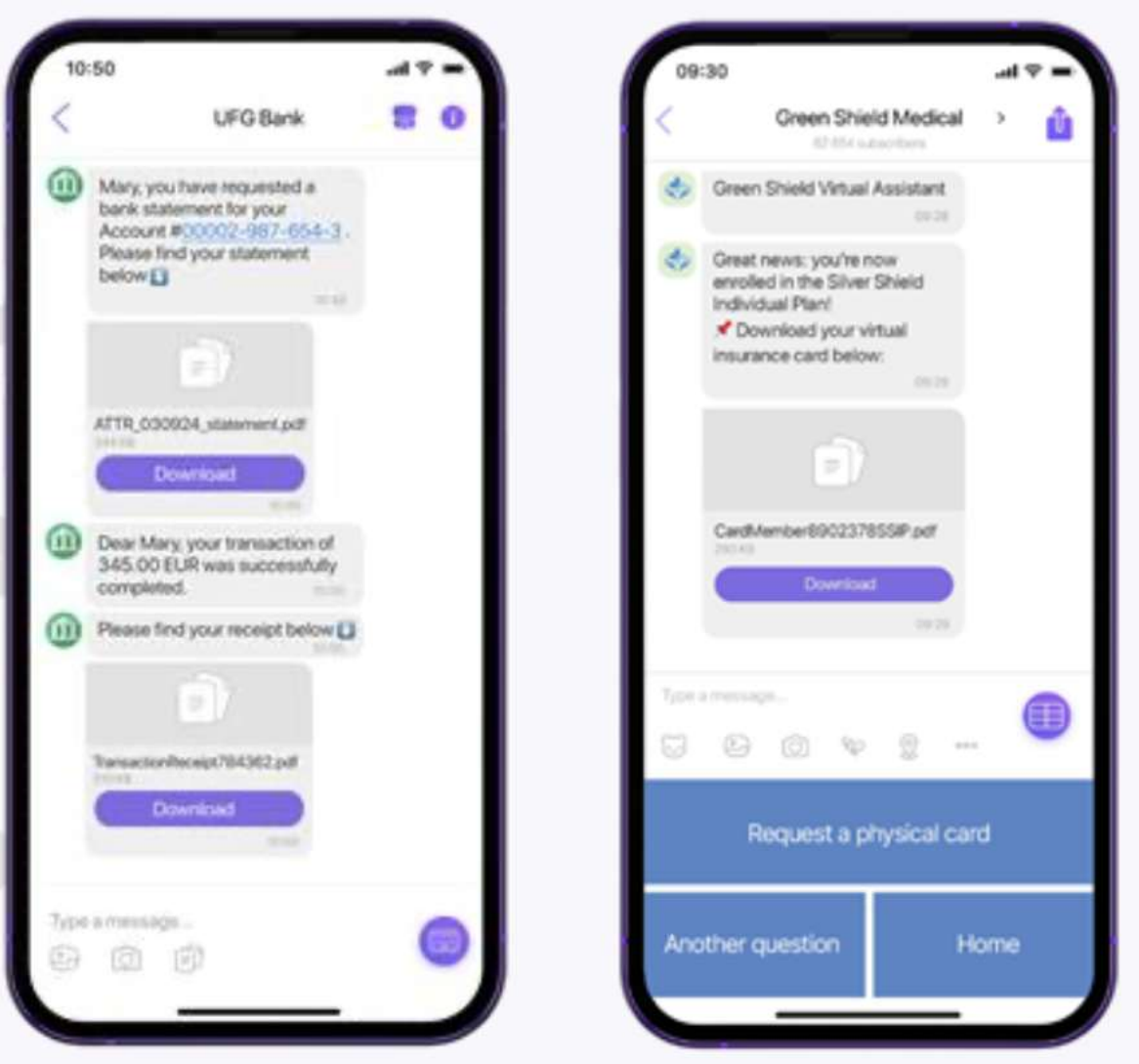
Figure 28. Banking secure solutions



Source: Apifon's case study report for banking and insurance sector (2024, p.8)

Figure 29 presents cases about sharing important information with customers in the context of the banking sector.

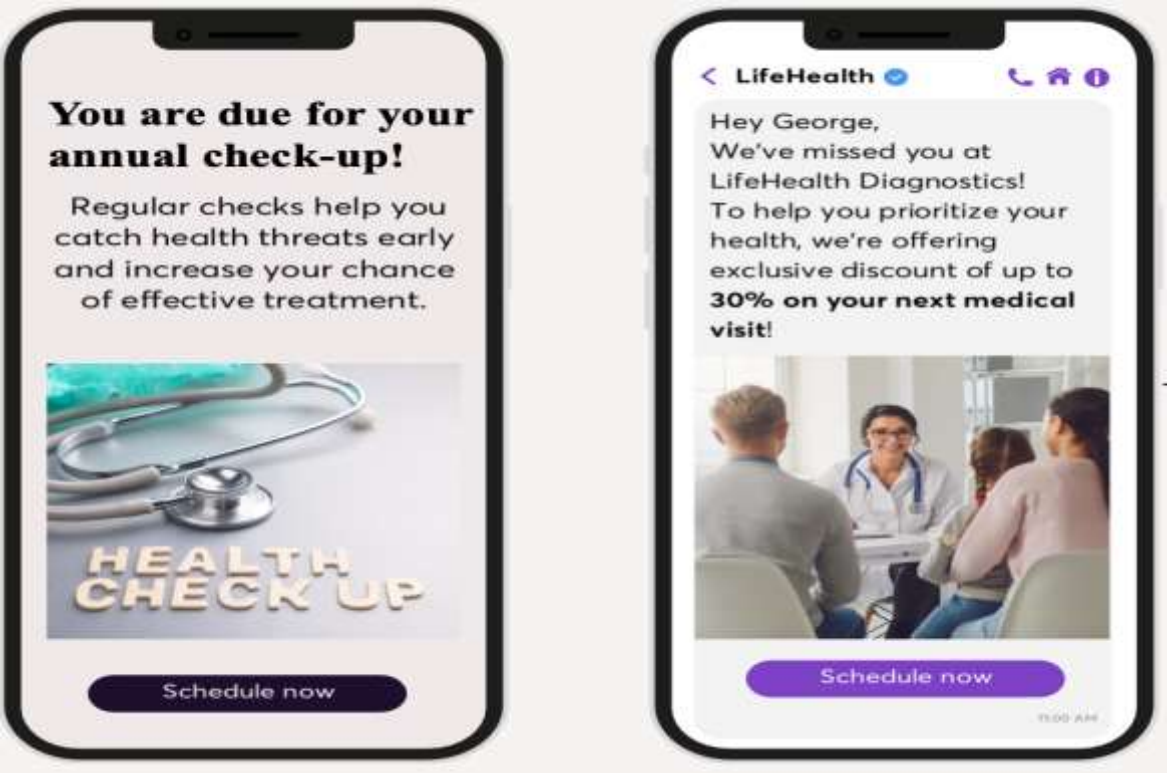
Figure 29. Banking important information sharing



Source: Apifon's case study report for banking and insurance sector (2024, p.16)

The healthcare and diagnostic center use cases provide additional evidence of the practical importance that post-service communication has. According to the "*Diagnostic Centers Use Cases*" presentation, conversational systems support appointment reminders and patient notifications. They also offer real-time updates and personalized communication strategies. All these actions are designed, in order for them to improve patients' retention and engagement (Figures 30 and 31). Figure 30 presents cases about achieving customers' engagement through notifications, in the diagnostic centers' sector.

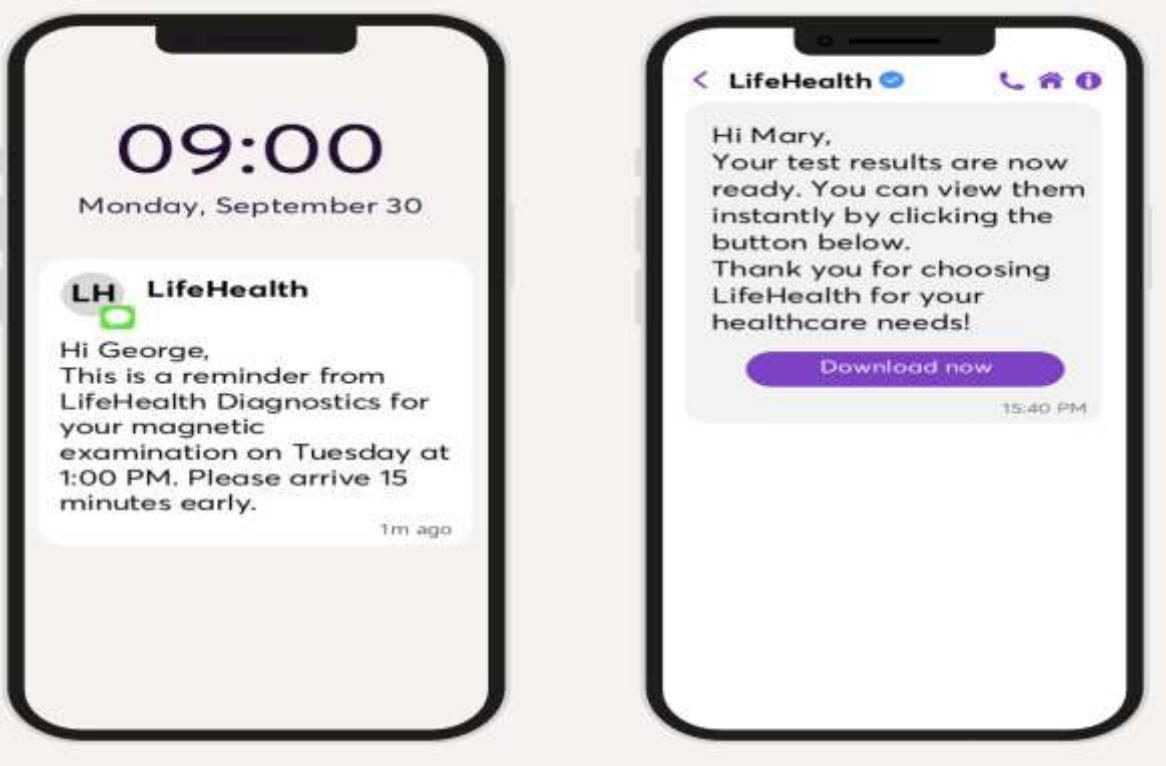
Figure 30. Diagnostic centers notifications and engagement



Source: Apifon's case study report for diagnostic centers (2024, p.7)

Figure 31 presents cases about reminders to customers, in the context of the diagnostic centers.

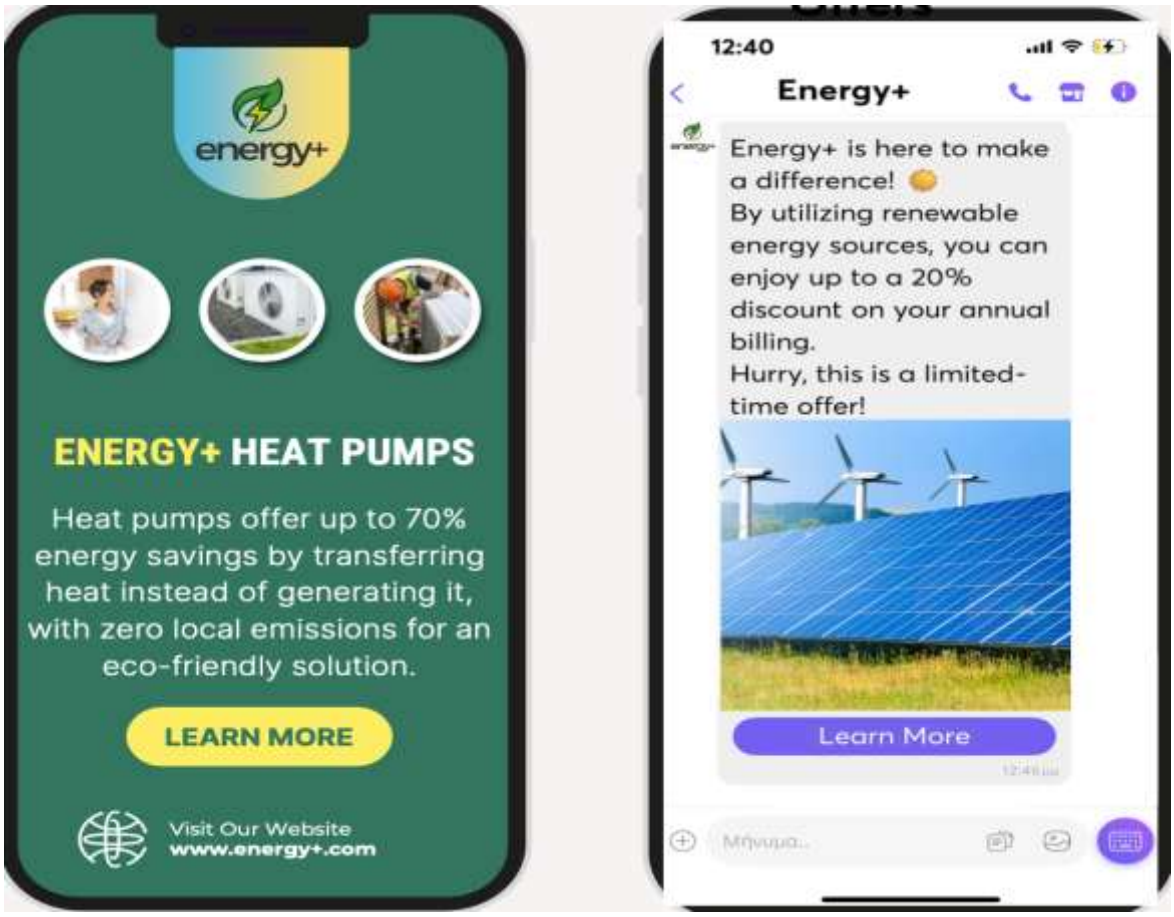
Figure 31. Diagnostic centers reminders



Source: Apifon's case study report for diagnostic centers (2024, p.8)

Similarly, the energy sector use cases show how conversational AI supports the ongoing customer communication and the operational updates. the messaging systems help the energy organizations offer real-time customer updates, payment reminders, and sustainability-related communication (Figures 32 and 33). Figure 32 present cases about newsletters and offers that concern the energy sector.

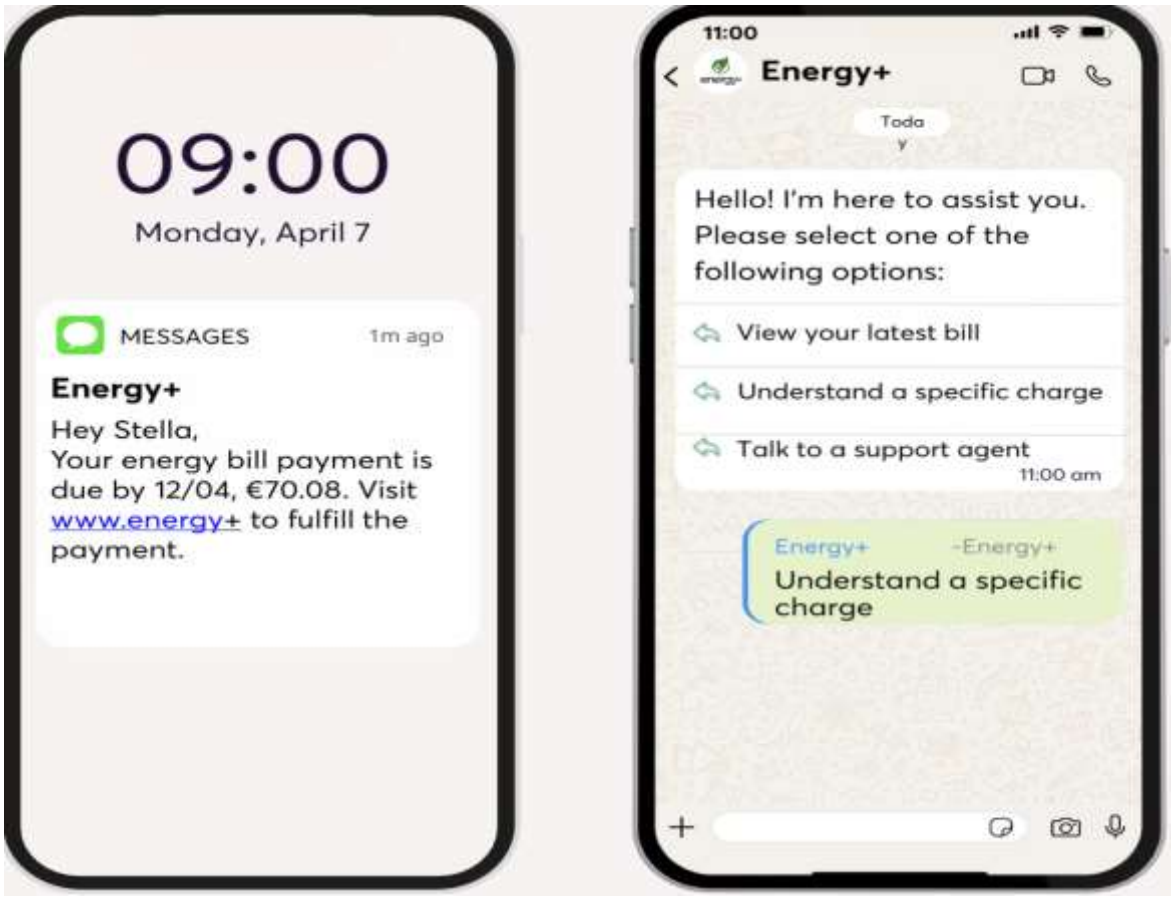
Figure 32. Energy sector newsletters and offers



Source: Apifon's case study report for energy sector (2024, p.7)

Figure 33 present cases about billing notifications and other alerts that might be sent to the customers of organizations that operate in the energy sector.

Figure 33. Energy sector billing notifications and alerts



Source: Apifon's case study report for energy sector (2024, p.8)

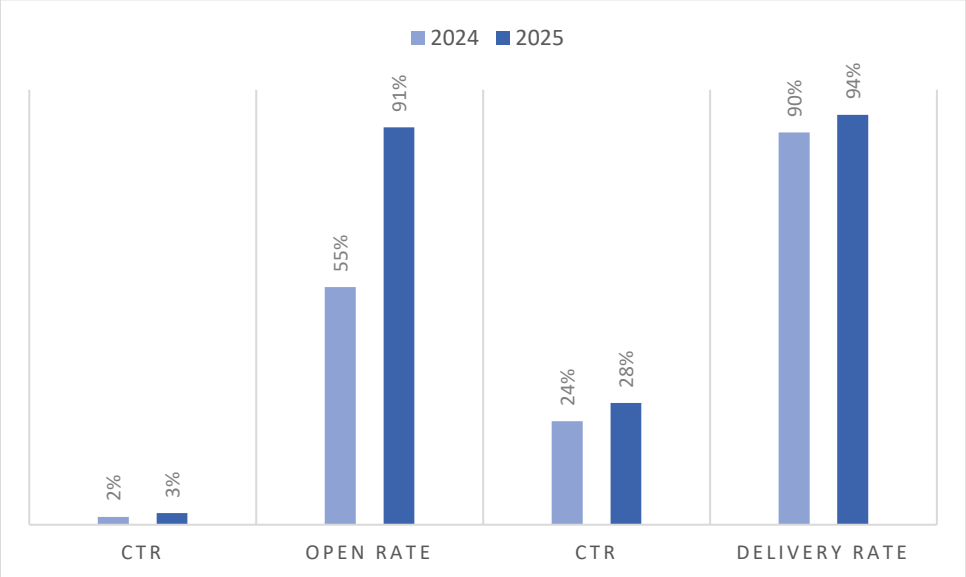
Finally, the Mattress Company promotional campaign also proves the effectiveness of smart segmentation and behavioral targeting in optimizing the performance of omnichannel communication. Proceeding to a combination of Viber messaging with SMS failover strategies, the Mattress Company's campaign achieved strong engagement metrics. These metrics, for instance, include a 91% Viber open rate and a 28% SMS CTR among the messages that had been delivered. The Mattress Company's report shows that smart audience segmentation significantly improved customer responsiveness. At the same time, it reduced communication costs by a percentage of 27%, compared to the equivalent 2024 campaign of the same company.

Also, the comparative analysis between the 2024 and 2025 campaigns of Mattress Company additionally proved the strategic value that AI-driven messaging optimization has. In more analysis, despite targeting a smaller audience in 2025, the campaign achieved higher open rates (Diagram 1). It also presented improved click-through performance and stronger

delivery efficiency, and this happens across both Viber and SMS channels. These results prove that conversational AI and behavioral segmentation improve communication precision. At the same time, these actions improve campaign effectiveness beyond traditional mass messaging approaches.

The Mattress Company retargeting campaign shows the importance of messaging behavioral data and adaptive communication strategies. in customer re-engagement. After leveraging smart segmentation properties that are derived from previous campaign behavior, the organization identified specific customer groups. This identification was done based on message interaction patterns. These patterns included Viber seen audiences, SMS non-clickers, and Viber non-openers (Diagram 1 and Table 4). It is about a targeted retargeting strategy, which finally achieved an additional 10,8% CTR among users who had not clicked the previous SMS campaign. At the same time, the SMS campaign, which was directed toward customers who had not opened the previous Viber message, achieved a percentage of 26,3% CTR. These findings show that conversational AI can identify the most effective communication channel for each customer segment. Therefore, it might significantly improve customer activation rates, and this might be achieved without unnecessary communication expenditure for the corresponding company. Furthermore, the campaign achieved an additional 13% cost optimization, while reactivating thousands of previously unresponsive customers (Diagram 1 and Table 4).

Diagram 1. Mattress Company results 2014 vs 2025



Source: Apifon's report for mattress company results (2025, p.2)

Table 4 presents information about the quantitative results about the mattress company, during the years 2024-2025.

Table 4. Mattress Company results 2014 vs 2025

	Audience	Viber					SMS				
		Delivered	Seen	Clicked	CTR	Open Rate	Sent	Delivered	Clicked	CTR	Delivery Rate
2024	230754	164555	89930	3000	2%	55%	66199	59693	15744	24%	90%
2025	167747	116808	106704	3090	3%	91%	50925	47975	13417	28%	94%

Source: Apifon's report for mattress company results (2025, p.1)

These findings prove the smart audience segmentation, behavioral analytics, and adaptive omnichannel communication's strategic importance in maximizing campaign efficiency and, at the same time, in reducing communication waste and improving customer engagement outcomes. Next chapter includes the conclusions of this dissertation. It also includes managerial recommendations, industry outlook, and policy implications. Next chapter includes the final conclusions and recommendations.

Chapter 5: Conclusions and Recommendations

5.1 Conclusions

The dissertation's findings confirm that conversational artificial intelligence has become a strategic business asset. It is an asset that affects, on the one hand, the operational communication processes, and on the other hand, the overall economic performance, alongside the financial outcomes and the broader organizational transformation. Taking into consideration the empirical results that have been derived from the campaign datasets of Apifon, the industry's use cases, together with the experts' interviews, which included Apifon's CEO Ioannis Terzakis and CISO, Kyprianos Vasilopoulos, show that conversational AI contributes to measurable business value. It does so, especially, through customer engagement enhancement and operational efficiency. It also achieves this by cost reduction, scalability, and customer-centric digital transformation. From an economic perspective, the empirical findings showed that conversational AI tends to reshape the customer interaction models and market competitiveness. Besides, the studies that had been conducted by Varian (2019, p.399, 416-417) and George et al. (2023, p. 30-31) emphasized the fact that messaging automation reduces information friction, and, at the same time, they supported that it is a strategy that improves allocative efficiency and allows business entities to scale customer interaction at marginal costs close to zero.

As for the findings of the present study, they support the arguments of Varian (2019, p.399, 416-417) and George et al. (2023, p.13,33-35). The practical use business cases showed that conversational systems simplify the customer journeys and procedures, while they allow the users to complete tasks directly through the messaging environments, and this means that the users do not have to cope with visiting many different websites or applications. Especially, in the use cases of the booking and reservations, such as for example the one of ferry transportation, they showed how conversational interfaces simplify some procedures that were traditionally complex, after integrating guided communication flows. These findings confirm Meyer et al.'s (2020, p.87) argument, that supported that messaging technologies align with customer preferences that concern, on the one hand, immediacy and, on the other hand, convenience. At the same time, the above-mentioned findings support McTear's (2022, p.12-13) proposition. According to McTear (2022, p.12-

13) conversational agents have become multifunctional customer interaction systems. They can support complex customer journeys, while they once were only narrow automation tools. The same empirical findings additionally support Huang & Rust's (2021, p.30, 47) argument. They stated that AI-driven personalization improves customer experience. They also mentioned that the AI-driven personalization increases engagement levels. Besides, the campaign data showed that personalized conversational messaging improved conversion rates. It also improved customer interaction performance. This was something that traditional communication channels could not do to such an extent.

Furthermore, the empirical findings validate the strategic management literature about conversational AI as a source of competitive advantage. Barney (1991, p. 99) and Mikalef et al. (2018, p.547, 2019, p.272) explained that the strategic value of AI comes on the one hand from technological sophistication, and on the other hand, from its integration into organizational routines and operational processes. These include the customer data infrastructure. Taking into consideration the empirical findings of this dissertation, it is concluded that they are aligned with this interpretation. According to the interview with Apifon's CISO, Kyprianos Vasilopoulos, messaging becomes strategic in the case where it is integrated into the "*core customer journey,*" and therefore, it ends up influencing marketing, customer support, onboarding, and sales, at the same time. It is about a finding that undoubtedly confirms the resource-based capabilities perspectives. These perspectives have already been discussed in the study that was conducted by Teece (2007, p.1319). His argument was that organizations create strategic advantage through the ability to sense opportunities and continuously reconfigure resources.

In addition, the current empirical results showed that conversational AI enables cost leadership and differentiation strategies. This finding agrees with the arguments of both Brynjolfsson et al. (2017, 19-20) and Porter (1985, p.66-67). Brynjolfsson et al. (2017, p.19-20) and Porter (1985, p.66-67) suggested that the communication that is AI-driven allows companies to reduce their operational costs. At the same time, it allows them to improve both personalization and customer experience. The current findings confirm this dual effect. On the one hand, organizations achieved operational efficiency gains. They also achieved these gains through automation, communication scalability, and reduced customer acquisition costs. On the other hand, business entities improved customer engagement. This positive outcome came through personalized messaging. It also came from omnichannel communication strategies and behavioral segmentation.

Examining this issue from a financial perspective, the empirical findings showed that conversational AI generates measurable economic value. This value comes from cost reduction and improved ROI. It also comes from customer retention and operational scalability. In that case, Davenport & Ronanki (2018, p. 108) and Brynjolfsson & McElheran (2016, p. 133) emphasized that messaging automation reduces labor costs. They also stated that messaging automation shortens service cycle times. Therefore, it contributes to improved operating margins. The current empirical findings validate these arguments. It is a fact that the Click-to-WhatsApp performance metrics showed cost-per-lead reductions of up to 50%. They also showed decreases in customer acquisition costs. Similarly, the Kids Fashion Brand campaigns created exceptionally high return-on-investment and return-on-ad-spend values. Similar improvements have been observed in the Mattress Company's case.

These findings support Lemon & Verhoef's (2016, p.69) and Firmansyah et al.'s (2024, p.12-13) arguments. They argued that conversational AI positively affects customer lifetime value. The Health and Wellness Fitness Center's case study is equally important in this regard. It presented increased membership growth. It also presented improved customer retention and long-term business expansion. These results came after the implementation of integrated messaging strategies. Therefore, the findings are aligned with the literature. This alignment suggests that conversational AI contributes to long-term value creation.

The current study also supports the literature, emphasizing that conversational AI should be viewed as a strategic platform investment. McAfee & Brynjolfsson (2017, p.31) argued that AI investments need significant initial infrastructure expenditures. They also stated that AI investments generate financial benefits over a long period of time. This dissertation's findings align with this perspective. Organizations that integrated conversational AI into their CRM systems and omnichannel communication achieved strategic benefits. It is about an observation that additionally supports Trigeorgis & Reuer's (2017, p.42) argument. They stated that AI investments create option value enabling future organizational flexibility. They also mentioned that AI investments offer innovation opportunities for companies.

At the same time, this dissertation's findings extend the literature. They do so by showing the way in which performance measurement systems operationalize conversational AI value creation in practice. For example, it is reminded that Mikalef et al. (2018, p.547, 2019, p.272) emphasized the KPIs' importance in realizing the financial value that is related

to the adoption of AI systems. This dissertation's empirical results confirm this argument. Besides, the Kids Fashion Brand campaigns relied on CTR, CPC, ROAS, and ROI indicators. These indicators were used for the evaluation of the campaign effectiveness. So, the current findings show how conversational AI environments lead to measurable performance environments. They do so based on data about customer interaction in real-time.

From an organizational perspective, these findings showed that conversational AI transforms workforce structures. It also transforms leadership priorities. These priorities include the overall organizational coordination mechanisms. At this point, it needs to be considered the fact that Acemoglu & Restrepo (2020, p. 2188) mentioned that messaging automation allows repetitive and low-complexity tasks to be automated. They also mentioned that messaging automation enables human employees to focus on higher-value activities. The present findings support this task-based transformation perspective. It is a fact that the interview findings and operational use cases showed that conversational systems automate repetitive communication processes. They also showed that they increase the strategic importance of customer journey management and communication optimization.

Additionally, the findings of this dissertation support Raisch & Krakowski's (2021, p.192, 208-209) argument. According to Raisch & Krakowski (2021, p.192, 208-209), conversational AI generates strategic value only when it is supported by organizational alignment. It also creates value when it is supported by leadership commitment and cross-functional collaboration. According to Apifon's CISO, Kyprianos Vasilopoulos, messaging initiatives cannot belong exclusively to IT or marketing departments. On the contrary, they require coordination across customer service and compliance. They also need coordination across analytics and operational functions. This finding supports the existing literature about how important organizational governance structures are in the assessment of AI's value.

Also, the current findings validate the study of Huang & Rust (2021, p.47, 45-46), discussing conversational AI as part of broader omnichannel communication ecosystems. These ecosystems are integrated with CRM systems together with customer analytics infrastructures. Across all industries that had been examined in this dissertation, organizations increasingly combined SMS, Viber, WhatsApp, and email communication in centralized customer interaction environments. This integration strengthened customer

experience consistency. At the same time, it improved operational coordination. It also increased communication scalability.

One further important organizational finding concerns cybersecurity and trust management. Luo et al. (2019, p.937) and Suri (2022, p.31-32) stated concerns regarding issues like, for instance, user trust and data governance in the adoption of conversational AI. The findings of this study reinforce these concerns. According to the interview with Apifon's CISO, Kyprianos Vasilopoulos, cybersecurity is no longer an optional feature. On the contrary, it is a "*fundamental business requirement*". This happens because messaging infrastructures process sensitive financial and personal information. It is about an empirical finding that is aligned directly with the literature, that emphasizes the importance of governance and regulatory oversight in AI-enabled environments.

Finally, it is mentioned that the Viber Business documentation additionally increased the strategic role of trust and security. They did so by emphasizing encryption systems together with GDPR compliance and secure cloud infrastructures. At the same time, enterprise messaging ecosystems were the main components. Consequently, the current findings support the literature, suggesting that sustainable conversational AI adoption depends on the one hand, on technological performance and, on the other hand, on customer trust and organizational resilience.

5.2 Managerial Recommendations

The findings showed that conversational artificial intelligence should be treated as a broad strategic capability. This capability is integrated in the fields of customer interaction and organizational transformation contexts. Therefore, organizations that have the aim of adopting messaging automation should follow a scalable implementation roadmap. This roadmap might combine technological deployment with organizational alignment and long-term strategic integration. First, business leaders and managers should approach conversational AI adoption through a customer-centric perspective. Considering the results of this dissertation, it has been demonstrated that messaging automation creates the highest possible value. Messaging automation achieves this when it is integrated into the customer journey itself. This includes, for instance, onboarding, purchasing, support, retention, and post-sale engagement. This means that organizations should initially identify the customer interaction points that are characterized by high friction, repetitive communication, or

delayed response times. These are the areas that represent the strongest opportunities for automation. They also present opportunities for the improvement of the total customer experience.

Then, organizations need to begin with business objectives that are clearly defined. This needs to be done before the implementation of conversational AI systems. The findings of this study showed that the successful implementations had been associated with measurable operational. They have also been related to financial goals. Characteristic and indicative examples of these goals are customer acquisition improvement, conversion optimization, customer retention enhancement, and operational efficiency. Communication scalability is also included. Therefore, executives must avoid the adoption of conversational AI solely for the reason of following the existing technological trends of the market. They should connect the implementation directly to strategic organizational priorities. Measurable KPIs need to be also integrated.

Third, companies should prioritize omnichannel integration. This dissertation showed that organizations achieved stronger results when they integrated SMS, WhatsApp, Viber, and email in their centralized communication environments. In the cases of these organizations, the centralized communication environments are connected to CRM systems and to the analytics that concern their consumer audience. This means that a fragmented communication approach might limit customer experience consistency. At the same time, it might lead to a reduction in operational effectiveness. Consequently, firms should invest in integrated communication infrastructures. They might focus on communication infrastructures that have the capability to support unified customer interaction management across all major channels.

Additional managerial recommendations is personalization and data utilization. The current findings showed that conversational AI becomes substantially more effective in cases where the organizations use behavioral segmentation. It is also more effective in cases where the organizations use adaptive communication strategies. Therefore, organizations must develop internal analytical capabilities that might allow them to monitor customer engagement patterns. Furthermore, organizations should adopt phased implementation strategies. After all, the findings suggest that successful conversational AI adoption begins with targeted operational areas, before expanding into more complex interaction environments. Customer support automation, appointment reminders, booking systems, or promotional messaging are the most characteristic examples. A phased approach will give

organizations the ability to test performance. Then, they might be capable of gathering customer feedback. They might also be able to improve their operational processes, while minimizing their implementation risks.

At an organizational level, executives must ensure the existence of a strong cross-functional collaboration during the conversational AI deployment. This study concluded that messaging automation affects many departments. These departments include, for example, marketing, customer service, compliance, IT, operations, and analytics. Therefore, conversational AI governance should not remain isolated in a single department; instead, organizations need to create cross-functional coordination mechanisms. These mechanisms will ensure the alignment between technological infrastructure, customer experience management, and regulatory compliance. The communication strategy that is followed on an organizational level needs to be included.

As for the workforce adaptation and capability development, the current empirical findings showed that conversational AI does not simply replace human labor. It redistributes responsibilities toward higher-value strategic and analytical activities. Therefore, organizations might invest in their workforce reskilling. They must also invest on their employees' digital capability development. The companies that fail to support workforce adaptation might experience organizational resistance. They might also face limited value realization.

Executives should implement performance measurement frameworks. These frameworks need to be capable of evaluating the messaging automation's effectiveness. Considering this study's empirical findings about the KPIs' importance, it is proposed that organizations monitor these metrics continuously. Organizations are further proposed to use real-time analytics. One equally critical managerial recommendation concern trust and compliance integration. The findings showed that conversational AI processes sensitive customer information. Therefore, it affects customer trust. Considering this, organizations are obliged to integrate cybersecurity. They also need to integrate data protection considerations. This needs to be done from the earliest stages of system design.

Finally, organizations should view conversational AI as a long-term strategic investment. It is not a short-term operational experiment. The findings of this study showed that the highest value is succeeded when messaging automation becomes integrated into a wider strategy towards digital transformation. This strategy involves CRM systems. At the same time, it involves analytics platforms, customer engagement infrastructures, and

operational coordination mechanisms. The companies that treat conversational AI strategically have more possibilities to achieve sustainable competitive advantages. They are also more likely to achieve stronger relationships with their consuming audience. This might additionally lead them to long-term scalability.

5.3 Industry Outlook

The dissertation's findings propose that conversational artificial intelligence is going to continue to evolve. It will increasingly become a foundational layer of digital interaction, and this is going to happen across different industries. Especially, the results from the experts' interviews highlighted that conversational interfaces tend to become integrated digital ecosystems. They are going to be capable of supporting transactions. They will also be able to support operational processes. They might be able to improve customer relationship management, too. Therefore, a future trend is the personalization capabilities' growing sophistication. The findings showed that organizations tend to integrate communication strategies that are highly individualized. These strategies are based on behavioral data. They are also based on real-time customer responses. At this point, the fact that the AI systems are becoming mature. Considering this, the conversational platforms are expected to deliver predictive and context-aware interactions. These interactions will be able to adapt to customer preferences. They will also be able to adapt to customers' behavioral patterns.

In addition, the interviews' results proposed that messaging applications may become primary digital interfaces between the companies and their customers. According to Apifon's CEO Ioannis Terzakis's perspective, conversational interfaces may function similarly to how mobile applications define the pre-existing digital decade. Therefore, the customers are even more accustomed to interacting through messaging environments that are already integrated in their everyday communication routines. As a direct consequence, firms are likely to continue shifting their customer interaction processes directly into conversational environments. As for the increasing maturity of conversational AI infrastructures themselves, the current systems already support customer support automation. They also support onboarding, reservation systems, and purchasing flows. However, the future conversational environments are expected to become even more intelligent. They are expected to be more autonomous. They might achieve this through

advances in large language models and integrated AI ecosystems. Conversational systems may function as intelligent assistants that will have the ability to support complex transactional. These intelligent assistants will also be able to support decision-making activities in real time.

Furthermore, future communication environments are likely to become deeply interconnected with organizational data ecosystems. This is going to enable seamless customer interaction continuity across the departments and communication channels. Another important future trend concerns the evolution of human-AI collaboration models. Empirical findings showed that conversational AI currently automates repetitive and low-complexity communication tasks. At the same time, human employees continue handling strategic and judgment-intensive responsibilities. This means the existence of a hybrid interaction model. This model is likely to become increasingly important in the future.

In addition, the leadership roles in the organizations are expected to evolve as conversational AI adoption increases. In that context, executives are possible to combine technological understanding with strategic customer experience management. They are also possible to combine technological understanding with digital governance and capabilities that concern the data-driven decision-making processes. Therefore, the businesses that successfully integrate conversational AI are more likely to be capable of balancing automation efficiency with their integrated human-centered customer relationship strategies.

Finally, this dissertation suggested that trust and cybersecurity will become major competitive differentiators in conversational ecosystems' contexts. Considering the fact that the messaging platforms process increasingly sensitive customers' information and the fact that they support financial and healthcare interactions, the organizations that are going to be capable of ensuring security and regulatory compliance are also going to gain substantial market advantages. This means that trust may evolve into one of the most valuable intangible assets in the context of the AI-driven and digital communication environments.

5.4 Policy Implications

Critically evaluating this dissertation's findings, they might have implications for the European Union's competition policy frameworks. They might also have implications for data protection governance. Conversational artificial intelligence becomes integrated

into the enterprise communication infrastructures. Considering this, the policymakers face even more challenges. These challenges are about market regulation and consumer protection. There are equally important challenges concerning digital competition and responsible AI's deployment. First, one policy implication concerns the role that is played by the conversational AI within the EU's digital transformation agenda. This dissertation, through its research findings, showed that messaging automation might lead to operational efficiency. At the same time, messaging automation contributes to increasing customer engagement. It also improves productivity and helps digital service innovation. This means that conversational AI may support the overall European objectives.

At the same time, the current findings propose that conversational AI may alter competitive dynamics. This might happen in the context of the digital markets. It might do so, creating the possibility of widening digital maturity gaps that exist between technologically advanced organizations and the smaller businesses. Besides, smaller firms have more limited digital capabilities. Therefore, European competition policy may need to address issues that are related to digital concentration. Also, it needs to address issues that are also related to platform dependency. Issues concerning the unequal technological access of all companies have to be also addressed. As for the growing strategic importance of data governance, the findings showed that conversational AI systems collect and analyze large volumes of data about customer interaction. Considering this, the customer data increasingly functions as a strategic economic resource. Therefore, policymakers may need to strengthen the frameworks ensuring transparency and responsible data utilization. At the same time, they need to promote fair customer data governance practices.

The importance of GDPR compliance was reinforced by the current results. The platforms of messaging automation increasingly process sensitive personal and transactional information. This information includes customer identities, financial details, behavioral analytics and communication histories. Considering this, GDPR principles need to become even more critical, when the AI-enabled communication systems are integrated in the organizations. Finally, conversational interfaces are increasingly sophisticated and autonomous. Therefore, customers may not clearly understand in all cases whether they interact with human representatives or with systems that are AI-driven. Policymakers need to take this possibility into account. They need to strengthen transparency obligations in order to ensure that all users are informed about automated decision-making and AI-based interactions.

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APPENDIX I. INTERVIEWS

Expert Interviews on Conversational AI Adoption

Interview 1

Strategic Vision and Business Value of Conversational AI

Interviewee: Ioannis Terzakis, CEO, Apifon - Former CFO Microsoft Hellas

Introduction

To explore the strategic and financial implications of conversational AI adoption in enterprise environments, a semi-structured interview was conducted with **the CEO of Apifon and former CFO of Microsoft Hellas**. The discussion focused on how messaging platforms evolve into strategic business infrastructure, how enterprises measure the financial impact of conversational automation, and how conversational interfaces may transform future digital interactions.

Q1: Messaging platforms have evolved significantly over the last decade. How do you interpret this transformation?

Answer

Over the last decade messaging has shifted from being a simple notification tool to becoming a **core customer interaction interface**. Initially, businesses used SMS to send alerts or transactional information. Today, messaging platforms enable fully interactive experiences where customers can complete complex tasks without leaving the conversation environment.

This shift has been accelerated by conversational AI technologies. Businesses are now able to automate a large part of customer interactions while maintaining a personalized experience. As a result, messaging is no longer just a communication channel; it becomes **a digital service layer between enterprises and customers**.

Q2: When does messaging become a strategic enterprise asset rather than simply an operational tool?

Answer

Messaging becomes strategic when it is integrated into the **core customer journey**. When messaging supports not only notifications but also purchasing, onboarding, authentication, and customer service, it becomes part of the company's value creation process.

At that point it affects multiple business functions simultaneously: marketing, sales, operations, and customer support. Organizations begin to measure its contribution not only through communication metrics but through **revenue generation, operational efficiency, and customer retention**.

Q3: From a financial perspective, how do companies measure the return on investment of conversational AI?

Answer

The financial evaluation typically focuses on three dimensions.

First is **operational efficiency**, particularly in customer service automation where conversational bots can reduce the volume of human interactions.

Second is **conversion improvement**, as conversational journeys simplify purchasing processes and reduce friction for customers.

Third is **customer lifetime value**, since personalized interactions can strengthen relationships and increase repeat engagement.

When organizations measure these factors collectively, conversational AI often delivers strong financial returns.

Q4: Could conversational messaging eventually become the primary digital interface between businesses and customers?

Answer

Yes, and we already see this happening in many markets. Messaging applications have become the most frequently used digital platforms worldwide. When customers can interact with businesses in the same environment where they communicate with friends and colleagues, adoption becomes very natural.

In the near future, conversational interfaces may function as **digital assistants for everyday activities**, from booking travel to purchasing products or even applying for financial services.

Q5: For example, could we realistically imagine a scenario where someone applies for a loan through a WhatsApp bot?

Answer

Absolutely. In fact, the technology required for this already exists. A conversational interface could guide a customer through a structured process, collecting information step by step and performing identity verification through digital KYC mechanisms.

Such a process would dramatically simplify what is currently a complex financial procedure. Instead of navigating multiple forms or websites, the user would complete the entire process through a guided conversation.

Q6: How do conversational technologies change the traditional customer journey?

Answer

Conversational interfaces reduce friction. Traditional digital journeys often require users to navigate multiple pages or applications. Conversational experiences instead guide users step by step.

This creates a more **natural and intuitive interaction model**, which ultimately increases completion rates and improves customer satisfaction.

Q7: What organizational changes are required for companies adopting conversational AI?

Answer

One of the most important changes is cross-functional collaboration. Messaging initiatives cannot belong only to IT or marketing departments. They require alignment across customer service, product development, compliance, and data analytics.

Companies that successfully adopt conversational AI typically treat messaging as **an enterprise capability rather than a standalone tool**.

Q8: Looking ahead, what role do you see conversational AI playing in the digital economy?

Answer

Conversational AI will become a fundamental layer of digital interaction. Just as mobile applications defined the previous decade, conversational interfaces may define the next one.

Businesses that adopt conversational platforms early will likely gain significant advantages in customer engagement and operational efficiency.

Interview 2

Cybersecurity and Trust in Business Messaging

Interviewee: Kyprianos Vasilopoulos, Chief Information Security Officer - Apifon

Introduction

As messaging platforms increasingly process sensitive customer information, cybersecurity becomes a critical component of enterprise messaging infrastructure. To explore the security challenges and regulatory implications of conversational AI systems, an expert interview was conducted with **CISO at Apifon**.

Q1: How has the cybersecurity landscape evolved with the rise of conversational messaging?

Answer

The risk environment has become significantly more complex. Messaging platforms now handle authentication, financial transactions, and sensitive customer data. At the same time, cyber attackers increasingly use artificial intelligence to automate and scale their attacks.
This means that messaging providers must adopt **proactive security strategies** rather than reactive protection mechanisms.

Q2: Why is cybersecurity now considered a fundamental business requirement rather than an optional feature?

Answer

Because digital communication now sits at the center of business operations. If a messaging infrastructure fails or is compromised, the consequences extend far beyond IT systems.
They can affect **customer trust, regulatory compliance, and business continuity**. For this reason, cybersecurity must be embedded into the design of the platform from the beginning.

Q3: What are the most important GDPR considerations when deploying conversational AI systems?

Answer

Organizations must ensure that personal data is collected and processed transparently and only for legitimate purposes. Data minimization and access control are also critical principles.

Furthermore, conversational systems must ensure that sensitive information is stored securely and that users have clear visibility into how their data is processed.

Q4: Many companies choose messaging providers based primarily on cost. Why is infrastructure quality critical?

Answer

Low-cost providers often rely on minimal infrastructure and limited security capabilities. This may be sufficient for simple communication use cases, but not for enterprise-grade operations.

Organizations must evaluate whether their provider can deliver **high availability, strong encryption, and secure identity management**.

Q5: How does enterprise cloud infrastructure contribute to security?

Answer

Enterprise cloud platforms such as Microsoft Azure offer advanced security mechanisms including identity management, continuous monitoring, and global redundancy. These features help ensure that messaging systems remain resilient against both technical failures and cyber threats.

Q6: Messaging channels are increasingly targeted by fraud attempts. How can companies protect their customers?

Answer

Organizations must implement multiple layers of protection, including authentication mechanisms, monitoring systems, and anomaly detection. Penetration testing and regular security audits are also essential.

Security is not a one-time activity but an **ongoing process of monitoring and improvement**.

Q7: What role does regulation play in strengthening digital resilience?

Answer

Regulations such as the **Digital Operational Resilience Act (DORA)** introduce stricter requirements for organizations operating in sensitive sectors such as finance. These regulations require technology providers to demonstrate robust risk management, transparency, and operational resilience.

In practice, this means that security must be integrated into both technology and governance frameworks.

Q8: Looking ahead, how will cybersecurity evolve alongside conversational AI?

Answer

Security systems will increasingly incorporate artificial intelligence themselves, enabling faster detection of threats and more adaptive defense mechanisms.

Ultimately, trust will become one of the most important competitive advantages for digital communication providers.

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