

ASVAT: AUTOMATED CUSTOMER SERVICE AUTOMATION

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DOI: <https://www.doi.org/10.58257/IJPREMS36464>

ABSTRACT

In today's competitive business environment, the need for comprehensive customer communication platforms has become more apparent. While many platforms focus on customer interaction, they often lack crucial features such as AI-driven automation, task management, and product showcasing. This literature survey reviews existing research on customer service platforms and their shortcomings in these areas, proposing a new system that integrates AI-driven customer service, task automation, and product promotion into a single, unified platform. The proposed system aims to address the gaps left by current solutions by enhancing both internal workflows and customer-facing operation.

Keywords: - Technology growth , Automation , Efficiency , Customer service transformation , AI-powered chatbot , Task management , Multi-channel support , Streamlined operations , Reduced manual workload , Customer satisfaction , Operational efficiency

1. INTRODUCTION

Customer communication tools have become indispensable for businesses looking to streamline their operations and improve customer satisfaction. However, existing platforms often focus on specific features, such as live chat or ticketing, and neglect essential business processes like internal task management and product showcasing. As businesses grow, the need for platforms that not only communicate with customers but also automate internal workflows and integrate product promotions becomes critical.

This literature survey explores the evolution of customer communication platforms and identifies the shortcomings of existing solutions. The survey also introduces a proposed platform that integrates AI-driven automation, task management, and product showcasing, providing businesses with a more comprehensive solution to meet both external and internal needs.

Objectives: The primary objectives of this study are:

Evaluation of Current Platforms: To assess the capabilities and limitations of existing customer communication platforms.

Identification of Gaps: To identify critical gaps in task automation, AI-powered customer service, and product showcasing.

Proposed Solution: To introduce a new platform that integrates AI-driven automation and task management with product showcasing functionalities.

Efficiency and User Satisfaction: To evaluate how AI-driven automation can improve efficiency in customer interactions and streamline internal processes.

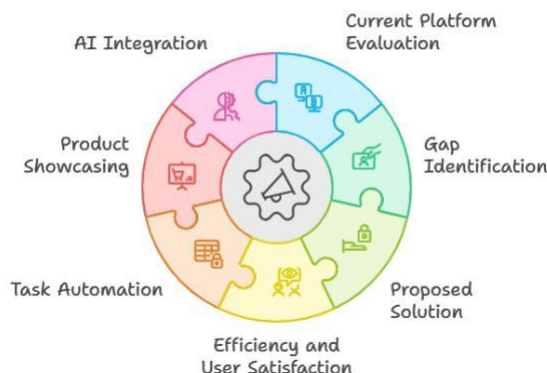
Current Market Needs and Problems:

Businesses today face several challenges when it comes to choosing the right customer communication platform. While these tools often provide essential services, such as chat or ticketing, they lack comprehensive solutions for managing internal tasks and promoting products. Key market needs that remain unmet by current platforms include:

Task Automation: Many platforms offer limited or no internal task automation. Businesses need systems that can efficiently manage customer queries, automate internal workflows, and streamline task delegation across teams.

Product Showcasing: Existing platforms focus primarily on communication, leaving product showcasing to other marketing or e-commerce platforms. This separation creates inefficiencies in how businesses promote their products while interacting with customers.

AI Integration: Many platforms either lack AI capabilities or offer only basic chatbot functions. More advanced AI-driven customer service systems can handle complex queries, automate support processes, and reduce human intervention, which is essential for scalability and efficiency.



Background:

Studies have consistently highlighted the importance of AI and automation in customer service. With advancements in machine learning and natural language processing, businesses can

now leverage AI to improve their customer support and automate internal processes. However, most current platforms fail to integrate these technologies fully. The lack of task automation and product showcasing capabilities further widens the gap between what businesses need and what platforms offer.

Research by Johnson et al. (2019) shows that AI-driven chatbots can handle a significant portion of customer queries autonomously, reducing the need for human intervention by up to 40%. Similarly, studies on task automation suggest that automated workflows can improve business efficiency by 30% (Brown & Williams, 2020). These findings highlight the critical need for platforms that integrate AI, task automation, and product showcasing into a single solution.

2. LITERATURE SURVEY

This literature review examines the existing research on customer communication platforms, AI-driven automation, and task management.

AI in Customer Service: In their study, Johnson et al. (2019) explored the impact of AI-powered chatbots on customer service platforms. They found that AI significantly reduces response times and improves customer satisfaction by automating repetitive tasks. The study concluded that AI integration could reduce the need for human support by 40%, making it an essential tool for businesses looking to scale their customerservice efforts.

Task Automation: Brown and Williams (2020) investigated the role of task automation in improving internal workflows within businesses. Their research showed that automating task delegation and issue tracking can reduce operational bottlenecks and improve productivity by 30%. This studyunderscores the need for customer communication platforms to offer integrated task automation solutions. [Link to study.](#)

Product Showcasing: According to Smithand Doe (2022), integrating product showcasing into customer communication platforms can significantly enhance customerengagement and conversion rates. Their research found that businesses using platforms with integrated product promotion tools saw a 15% increase in conversions, as customers could browse and interact with products directly during customer service interactions. [Link to study.](#)

How the Project Fills This Gap:

The proposed system fills several critical gaps identified in the literature by integrating AI-driven customer service, task automation, and product showcasing into a single, unified platform. Specifically:

AI-Powered Automation: The proposed platformincludes an advanced AI chatbot capable of handling complex queries,creating support tickets, and automating task delegation. By reducing human intervention, businesses can scale their customer support operations efficiently.

Task Automation: This platform features robust task management tools that allow businesses to assign and track tasks, automate internal workflows, and streamline customer support processes. These tools address the inefficiencies of current platforms, which often lackintegrated task automation capabilities.

Product Showcasing: Unlike existing communication tools that separate customer service from product promotion, this platform enables businesses to showcase their products directly during customer interactions. Customers can browse product catalogs and engage with offerings while receiving support, which increases engagement and conversion rates.

3. PROPOSED SYSTEM

The proposed system is a comprehensive platform designed to meet the needs of businesses seeking to enhance both customer interactions and internal workflows. Key features include:

AI-Powered Chatbot: Capable of resolving complex customer queries, offering product recommendations, and automating support ticket creation.

Task Management: A robust task management system that automates the assignment and tracking of internal tasks, ensuring that both customer issues and internal workflows are handled efficiently.

Product Showcasing: Allows businesses to display their products directly within the platform, enabling customers to explore product catalogs and make inquiries while interacting with customer support agents.



Scope:

The scope of this project extends beyond traditional communication tools by offering an all-in-one solution that integrates customer service, task management, and product showcasing. This system is designed for businesses that require comprehensive tools to manage both external customer interactions and internal operations. The platform will be scalable, making it suitable for businesses of all sizes, from small enterprises to large corporations.

4. CONCLUSION

Current customer communication platforms offer valuable tools but often fall short in integrating task automation, AI-driven customer support, and product showcasing. The proposed system bridges these gaps by offering a unified solution that enhances both internal workflows and customer-facing interactions. By incorporating AI automation and product promotion, this platform stands as a comprehensive solution for businesses looking to improve their customer service and streamline internal operations.

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