

Implementation of the Omni Communication Assistant (OCA) as a Communication Support Platform in Higher Education

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Abstract

Digital transformation has significantly influenced the education sector, encouraging universities to adopt modern digital platforms to improve communication with students. Effective use of communication platforms in higher education is essential to simplify interactions and make information sharing more efficient. This study explores the implementation of the Omni Communication Assistant (OCA) by the Directorate of Student Development at Universitas Islam Indonesia, highlighting how the platform supports student communication and identifying the challenges faced by users. This research uses a qualitative approach with thematic analysis guided by the Technology Acceptance Model (TAM). Data were gathered through interviews with users directly involved in managing and using the OCA platform. The results show that OCA improves communication efficiency by facilitating mass messaging through Whatsapp Blast features and integrating various communication channels into one user-friendly interface. However, users faced several challenges, including limited response time to incoming messages, technical issues, and issues with system maintenance. These findings emphasize the need for well-planned implementation strategies to boost user acceptance and operational efficiency in educational institutions.

Keywords: Omni Communication Assistant (OCA), Communication Platform, Technology Acceptance Model (TAM), User Attitude.



INTRODUCTION

In the era of globalization, the telecommunications industry plays a vital role in supporting sectors like the economy, government, and education. Digitalization has increased the demand for fast, efficient, and reliable communication. In education, access to information, academic services, and interactions among academics have increasingly relied on an adequate communication infrastructure. Since the mid-1980s, the industry has transformed with the end of monopolies and the rise of new competitors through liberalization, driven by technologies such as the Internet, IP protocols, and the World Wide Web, which transformed telecommunications into information and communication systems combining data, voice, and multimedia (Fransman, 2001). These changes reduced barriers and created opportunities for new players in the digital ecosystem. According to the International Telecommunication Union, the sector drives global digital transformation through broadband expansion and new technologies such as 4G and 5G, however, challenges like digital inequality and service affordability remain (International Telecommunication Union, 2023).

Digital transformation in the telecommunications sector involves more than just adopting new technology. According to Rogers (2016), a shift in how companies understand and create value is required. This includes transforming how they view customers, compete, use data, innovate, and define the value they offer. Rogers (2016) emphasizes that digital transformation is not a passive response to technological trends but an active strategy to build lasting advantages. Successful companies evolve at the level of strategy, structure, and organizational culture, rather than merely updating their tools. In this way, digital transformation becomes a foundation for delivering greater benefits to both businesses and society.

PT Telkom Indonesia, a leading telecommunications provider, actively supports national digital transformation through platforms like the Omni Communication Assistant (OCA). Developed by Telkom's Digital Business and Technology division, OCA integrates multiple communication channels such as WhatsApp, Telegram, Email, and Facebook Messenger into a centralized system (Telkom Indonesia, 2023). This integration simplifies and streamlines communication, especially for institutions like universities that manage large-scale interactions. OCA is based on a Communication Platform as a Service (CPaaS) model, enabling cloud-based communication via a unified interface (OCA Indonesia, 2024). Designed for organizational roles, from agents to supervisors and business owners, it ensures users can interact efficiently based on their responsibilities. OCA is fully owned by Telkom Indonesia and does not use a white label scheme. The

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platform's transparent usage-based pricing model allows unlimited access for active users without additional feature development costs, offering both technological and cost efficiency (OCA Indonesia, 2024).

OCA offers communication solutions such as OCA Interaction, which enables real-time communication across channels with ticketing and performance monitoring, and OCA Blast, for automated bulk messaging (OCA Indonesia, 2023). The implementation process includes use case adaptation, training, administrative setup, and system deployment across channels. OCA's strength lies in its ability to unify communication across platforms while centralizing customer data and offering real-time analytics. Built on Telkom's national infrastructure, it ensures system reliability and security through high-standard service agreements (OCA Indonesia, 2024). More than 200 institutions across education, public services, healthcare, and government have adopted OCA. Notable examples include regional tax departments and the Halal Product Assurance Agency, which use OCA to improve response speed, streamline communication, and enhance public service quality (OCA Indonesia, 2024).

Universitas Islam Indonesia (UII), specifically through the Directorate of Student Development (DPK), has adopted OCA to enhance communication effectiveness with students. Before implementing OCA, communication management involved multiple disconnected platforms, resulting in scattered information and difficulty in monitoring interactions (Leap Telkom Digital, 2023). These inefficiencies often resulted in inconsistent messaging, delays in response, and reduced student engagement. The adoption of OCA helped streamline the communication process by integrating all communication into a single, manageable dashboard. This approach not only enhances operational efficiency but also supports sustainability by reducing paper usage. As a result, UII has taken a proactive step toward modernizing its student services through digital transformation.

Despite the benefits, implementing digital platforms like OCA presents challenges that can hinder optimal use and reduce communication effectiveness. Understanding these issues and user attitudes is crucial for improving digital adoption in higher education. This study uses the Technology Acceptance Model (TAM) by Davis (1989), which highlights perceived usefulness and perceived ease of use as key factors in technology acceptance. Perceived ease of use refers to the belief that using a system requires little effort (Davis, 1989). When users find a system easy to learn and operate, they are more likely to adopt it. Perceived ease of use also affects perceived usefulness, as fewer difficulties help users see more value. In this context, both factors help explain

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how users at the Directorate of Student Development of Universitas Islam Indonesia respond to OCA.

Attitude toward technology also plays an important role in successful implementation. According to Wicaksono (2022), this attitude is shaped through experience, social interaction, and organizational context, and reflects whether users find the technology helpful or disruptive. Positive attitudes lead to curiosity and adaptability, while negative ones may result in resistance or anxiety. These are also influenced by training, support, and user confidence. In higher education settings like the Directorate of Student Development at Universitas Islam Indonesia, successful adoption of OCA depends on such attitudes. Perceptions of usefulness and ease of use directly affect how users navigate challenges. These challenges, in turn, shape their experience and influence future engagement (Wicaksono, 2022).

METHODOLOGY

This study employed a qualitative research approach, as described by Creswell and Creswell (2018), to explore and understand how users perceive and experience the implementation of the Omni Communication Assistant (OCA) at Universitas Islam Indonesia (UII). Qualitative research allows for the collection of rich, narrative data directly from participants, focusing on meanings, context, and subjective experiences. This method is especially suitable for investigating human interactions with technology in real-life settings, enabling the researcher to uncover phenomena and user attitudes toward communication platforms. The unit of analysis consists of three key individuals who are users involved in the management and use of OCA within the Directorate of Student Development (DPK) at UII. These informants include one operational staff member and two directors (past and present), all of whom have significant roles in implementing and utilizing the platform. Data were gathered through in-depth interviews informed by the Technology Acceptance Model (TAM) by Davis (1989), focusing on perceived usefulness and perceived ease of use. Interview questions were grouped into two main categories: platform advantages and user challenges. To analyze the data, the researcher used thematic and narrative analysis. Thematic analysis helped identify recurring patterns and key themes from the interview transcripts, while narrative analysis offered insights into each participant's experience using OCA in their professional roles. This dual approach ensured that the study captured both structured insights and the depth of individual stories, resulting in a complete understanding of how OCA was implemented and supports institutional communication at UII.

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DISCUSSION

User attitudes toward the usefulness of the OCA platform are strongly influenced by their perception of how much the technology can improve their performance, as described by Davis (1989). In this context, OCA is seen as providing significant benefits in supporting communication with students at the Directorate of Student Development, Universitas Islam Indonesia. The platform's ability to deliver mass messages through the WhatsApp blast feature has helped reduce the workload, especially for routine announcements. Additionally, the ticketing feature allows users to systematically track and manage student inquiries, minimizing miscommunication. Beyond technical benefits, OCA also contributes to institutional image by enabling more professional, organized, and formal communication. Although some parts of the system are still underdeveloped, users still express a positive attitude toward its continued use, provided that the features are further developed to suit the academic context.

These findings support Davis's (1989) idea that greater perceived benefits lead to higher acceptance. In this case, users find OCA useful for improving communication, managing student data, and creating a more formal institutional image. Wicaksono (2022) also notes that positive attitudes form when users see real value in a technology. These insights align with previous studies: Aladsani (2021) emphasizes that digital systems must match institutional needs, Annamalai et al. (2025) stress the importance of perceived usefulness, Chan Min Jie (2023) links user alignment with student engagement, and Kurnaedi and Widodo (2023) point out practical benefits in administrative work. Together, they confirm that OCA's success depends on users seeing clear and practical advantages.

To strengthen OCA's perceived usefulness, the Directorate should institutionalize OCA as the primary official communication tool, making it the primary channel for official student-related announcements. Regular evaluations should be conducted using indicators like response time, ticket tracking, and user satisfaction to ensure ongoing improvement. Developers should focus on enhancing proven features such as ticketing and blast messaging, not just by adding new tools, but by refining them to meet the context of higher education. This includes automating issue classification, academic templates, and adaptive reporting tools. With such improvements, OCA can become a platform that is not only technically effective but also strategically aligned with university needs.

User attitudes toward the ease of use of the OCA platform are shaped by their perception of how effortlessly the system can be operated. This aligns with Davis (1989),

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who defines perceived ease of use as the extent to which a person believes using a system requires little effort. In this context, the study found that most users at the Directorate of Student Development, Universitas Islam Indonesia, view OCA as simple, with a clear and intuitive menu structure. Basic features are easily learned, especially with initial guidance. However, users also reported challenges, particularly in understanding technical terms and exploring more advanced functions. The lack of consistent training among users contributed to differing perceptions, especially among those who did not receive formal onboarding.

These findings support Davis's (1989) view that ease of use not only directly affects acceptance but also strengthens users' perception of a technology's usefulness. In OCA's case, this perception is supported by accessible and relevant features. Tools like broadcast messaging and the ticket management system are seen as essential for simplifying daily tasks. For instance, the broadcast feature allows mass communication without tedious manual steps, while the ticket system streamlines student case management with clear statuses like open, in progress, or closed. The menu design also separates functions such as replying, reporting, and settings, making navigation intuitive, even for new users.

Wicaksono (2022) explains that positive attitudes toward technology are strongly influenced by pleasant user experiences, including ease of accessing features suited to work contexts. This is consistent with the finding that OCA's interface and familiar structure support smooth operation. Previous studies echo this: Aladsani (2021) highlights the importance of institutionally relevant features, Annamalai et al. (2025) emphasize the need for features that support academic processes, Chan Min Jie (2023) points to the role of user-friendly platforms in increasing engagement, while Kurnaedi and Widodo (2023) note that unfamiliar features can hinder non-technical users. To improve ease of use, DPK UII should implement ongoing support strategies, such as assigning internal staff to help peers and creating institution-specific learning materials. OCA's developers should also provide updated tutorials, practical manuals, and interactive guidance features. These combined efforts can enhance users' confidence and promote broader adoption of the platform.

Despite the convenience offered by OCA's WhatsApp blast feature, users at the Directorate of Student Development (DPK) UII face several challenges in accessing it. Each student contact must be manually registered by submitting a formatted list to the OCA team for verification and gradual upload, as users cannot input them directly. Given the high number of new students each year, this time-consuming process can delay

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information distribution, especially at the beginning of the academic year. Another major issue is the time limit imposed by the system, where messages that are not responded within 24 hours will expire and can no longer be answered. This creates pressure, especially when messages arrive outside working hours or during peak workloads, forcing staff to rush responses and increasing pressure on their workload.

Additional obstacles include the initial verification process before gaining access to OCA, which involves registration forms, account requests, and validation from Telkom's team. This process is often slow, and not all users receive adequate technical support, causing delays in system exploration and lowering adoption motivation. Scheduled system maintenance also creates disruptions. Users are often not informed beforehand, leading to delays or the need to switch back to personal communication platforms like WhatsApp. These interruptions can result in message delivery failure and delayed responses, which can damage student trust in institutional communication.

CONCLUSION

This research reveals two key insights that complement each other. First, the implementation of the OCA (Omni Communication Assistant) platform as a communication support system has received a positive response from users at the Directorate of Student Development (DPK) of Universitas Islam Indonesia. The platform is used for administrative announcements, student complaint tracking, and structured institutional communication. Users expressed a favorable attitude due to the practical benefits offered by features such as WhatsApp blast for mass information delivery and ticketing for managing conversations. These observations align with the concept of perceived usefulness, where users believe that the technology significantly improves their performance. At the same time, the platform is also seen as easy to use, thanks to its familiar design, clear navigation, and features that align with users' workflows, supporting the concept of perceived ease of use. Together, these two factors form a positive attitude toward the continued use of the OCA platform in the DPK environment.

However, the challenges encountered by users should not be overlooked. The manual input process for student contact data must go through the OCA team, making it difficult to manage large-scale information. The system's time limit restricts users from responding to student messages after a fixed window. The inefficient initial verification procedure delays early adoption, and unexpected system maintenance causes service disruptions. These challenges hinder the creation of a smooth user experience and may



diminish user satisfaction and erode positive attitudes toward the platform if not addressed by Telkom through improvements to OCA.

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