

From Dashboards to Dialogues: Evaluating the Impact of a Conversational Interface on a Business Intelligence Platform

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Abstract

As organizations increasingly rely on data-driven insights, executives face growing challenges in navigating complex business intelligence (BI) systems. Traditional KPI dashboards often require significant time and technical expertise, contributing to cognitive overload and delayed strategic action. This study investigates the integration of conversational chatbot technology into a KPI-driven analytics platform and its impact on executive decision-making within marketing and sales contexts.

Using a quantitative survey among marketing and sales executives, the research evaluates how a chatbot-enhanced interface influence key determinants of system value and usability. Results indicate that performance expectancy is significantly elevated through improvements in output quality and perceived time savings, demonstrating that executives view chatbot integration as a means to access more accurate and relevant insights faster. Furthermore, effort expectancy is positively affected by a reduction in cognitive load and enhanced computer self-efficacy, highlighting that conversational access simplifies data interaction and strengthens user confidence.

These findings suggest that conversational BI systems not only improve accessibility but also enhance decision confidence and efficiency in time-constrained executive environments. By connecting analytical depth with intuitive interaction, chatbots bridge the gap between technical capability and strategic usability. The study contributes to the growing body of research on conversational business intelligence by providing empirical evidence of its benefits for executive users and offers practical implications for system designers seeking to optimize decision-support technologies in marketing and sales contexts.

Keywords: AI Chatbots; Business Intelligence; Decision Support Systems; Executive Decision-Making; KPI Analytics.