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Evaluating the Impact of Jugl Software on Operational Efficiency in Indian SMEs

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Abstract: In an era of rapid digital transformation, small and medium enterprises (SMEs) in India face an urgent need to enhance operational efficiency and customer satisfaction through technology. Task and order management software such as Jugl presents a promising solution to address these demands. This study investigates the effectiveness of Jugl in streamlining workflows, improving employee productivity, enhancing internal communication, and fostering better customer interaction. Utilizing a structured survey with 27 Likert-scale questions and robust statistical analysis through SPSS, the study derives insights from 52 active Jugl users. Key statistical methods employed include descriptive statistics, t-tests, correlation, regression analysis, and reliability testing (Cronbach's Alpha). The results reveal a strong positive user perception of Jugl, with particular appreciation for its intuitive interface, productivity-enhancing features, and support systems. The findings suggest that Jugl not only simplifies operations but also significantly contributes to business growth and customer satisfaction, particularly in SME contexts. Strategic recommendations are proposed to enhance Jugl's usability, adaptability, and long-term value.

Keywords: Task Management Software, Jugl, Workflow Optimization, SME Productivity, Digital Transformation, Operational Efficiency, Customer Communication, SPSS Analysis

I.INTRODUCTION

The contemporary business environment demands efficiency, agility, and transparency, particularly for small and medium-sized enterprises (SMEs) that operate with limited resources. Manual processes and disconnected communication channels often lead to delays, miscommunication, and operational inefficiencies. Task and order management software has emerged as a vital tool to overcome these challenges by offering automation, real-time tracking, and collaboration features. SMEs often operate in volatile market conditions where quick decision-making and lean processes are crucial. Traditional tools like Excel or WhatsApp groups are inefficient when scaling operations beyond a few employees.

Jugl is one such platform tailored for SMEs. It integrates task assignment, order processing, employee coordination, and customer updates into a unified interface. With features like real-time dashboards, WhatsApp integration, custom forms, and AI-powered automation, Jugl aims to enhance business operations comprehensively. The purpose of this study is to evaluate Jugl's impact on operational efficiency, employee performance, and customer satisfaction in real-world SME environments. Jugl bridges the digital gap by offering enterprise-grade functionality without complex on boarding or high costs. The rise of affordable SaaS platforms has democratized access to technology, even for microbusinesses.

This paper is structured to provide an in-depth analysis of Jugl's influence on various aspects of business operations. Through a comprehensive literature review, well-defined research objectives, and quantitative analysis of user feedback, this study contributes meaningful insights into the effectiveness of digital task and order management systems. As digital transformation becomes a survival imperative, platforms like Jugl are not luxuries but necessities.

II.REVIEW OF LITERATURE

A significant body of literature supports the value of task and order management software in improving organizational efficiency. Smith and Lee (2020) highlighted how real-time collaboration tools minimize delays and improve team

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coordination. Garcia and Thompson (2021) found that integration of order management with inventory tools enhanced transparency and reduced fulfillment errors.

The post-pandemic era has further accelerated the demand for such tools. Kim and Anderson (2022) noted a sharp rise in mobile-first task management adoption due to remote work trends. Singh and Kumar (2023) emphasized the role of AI in predictive scheduling and intelligent automation, while Nguyen and White (2024) underscored the effectiveness of agile-oriented task tools for dynamic teams.

Despite these advancements, gaps remain. Most research focuses on large enterprises, overlooking the unique needs and constraints of SMEs. Further, integration issues with legacy systems, user adoption challenges, and the real-world impact of such tools on Indian SMEs are underexplored. This study addresses these gaps by offering practical, data-backed insights from SMEs using Jugl.

III.OBJECTIVES

Primary Objective: To assess the effectiveness of Jugl software in enhancing operational efficiency, employee productivity, internal collaboration, and customer satisfaction in Indian SMEs. **Secondary Objectives:**

- To evaluate the usability and user interface of Jugl.
- To analyze the impact of Jugl on task completion time and error reduction.
- To examine improvements in intra-team communication and accountability.
- To understand how Jugl facilitates customer engagement and transparency.
- To identify user satisfaction levels and suggest improvements.

IV.METHODOLOGY

The study employed a descriptive and quantitative research methodology. Data was collected using a structured questionnaire comprising 27 Likert-scale questions grouped into five thematic areas: Usability & Interface, Productivity & Workflow, Communication & Collaboration, Customer Interaction & Impact, and Support & Satisfaction.

Sampling: Purposive sampling was used to target 52 employees actively using Jugl within SME environments.

Data Collection Tool: Google Forms

Analysis Tools: SPSS, Excel, Microsoft Word

Statistical Techniques Used:

- Descriptive Statistics (mean, frequency, percentages)
- One-Sample T-Test (benchmark value = 3 for neutral)
- Correlation Analysis (Pearson's Coefficient)
- Multiple Regression Analysis
- Reliability Testing (Cronbach's Alpha)

V.FINDINGS

5.1 Reliability (Cronbach's Alpha)

Reliability analysis confirmed that the survey instrument was internally consistent and suitable for further statistical analysis. All thematic categories exhibited Cronbach's Alpha values well above the threshold of 0.70.

Thematic Area	Cronbach's Alpha (α)		
Usability & Interface	0.89		
Productivity & Workflow	0.85		
Communication & Collab.	0.82		
Customer Interaction	0.78		
Support & Satisfaction	0.91		

Interpretation: All themes have high reliability, with alpha values above the acceptable threshold of 0.70. Support & Satisfaction exhibits the highest internal consistency, suggesting that related survey items are very well aligned.



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5.2 Descriptive Insights

To understand the overall perception of users regarding Jugl's performance across different functional domains, a frequency distribution analysis was conducted. Respondents were asked to rate their agreement with various statements pertaining to usability, workflow management, communication, customer interaction, and support. The responses were measured on a 5-point Likert scale ranging from "Strongly Disagree" to "Strongly Agree." The following table summarizes the distribution of responses:

Thematic Area	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Usability & Interface	52.90%	38.50%	6.60%	2.00%	0.00%
Productivity & Workflow	45.50%	37.80%	11.70%	5.00%	0.00%
Communication & Collab.	44.20%	40.00%	10.80%	5.00%	0.00%
Customer Interaction	42.80%	40.40%	12.00%	4.80%	0.00%
Support & Satisfaction	43.60%	38.10%	13.30%	5.00%	0.00%

Interpretation: The majority of users responded positively across all thematic areas. Usability and productivity themes show over 90% agreement (Strongly Agree + Agree), indicating Jugl's effectiveness in delivering a user-friendly and productive work environment.

5.3 T-Test Results

To statistically validate whether users perceived Jugl positively across key thematic dimensions, a one-sample t-test was performed. The test compared the mean score of each theme against a neutral value of 3 on the Likert scale. A significantly lower mean score (closer to 1) indicates stronger agreement with positive statements about Jugl. The test results, including t-values, significance levels, and mean differences, are summarized in the table below. All thematic areas show a significant deviation from neutrality (p < 0.001), confirming that users consistently rated Jugl's features favorably.

Thematic Group	Mean	t-value	df	Sig. (2-tailed)	Mean Difference
Usability & Interface	1.63	-17.21	51	0	-1.37
Productivity & Workflow	1.72	-13.64	51	0	-1.28
Communication & Collaboration	1.73	-12.72	51	0	-1.27
Customer Interaction & Impact	1.78	-11.94	51	0	-1.22
Support, Satisfaction & Reliability	1.76	-12.58	51	0	-1.24

Interpretation: The statistically significant t-test results confirm that the respondents' average opinions about Jugl were more favorable than neutral across all dimensions, validating the software's overall impact.

5.4 Correlation Analysis

To assess the relationship between key functional areas of Jugl and overall user satisfaction, Pearson correlation analysis was performed. The results reveal strong positive correlations, indicating that as users perceive improvements in usability, productivity, communication, and customer interaction, their satisfaction also increases. The correlation coefficients are shown in the table below.

Thematic Relationship	Correlation Coefficient (r)		
Usability & Interface \rightarrow Satisfaction	0.82		
Productivity \rightarrow Satisfaction	0.85		
Communication \rightarrow Satisfaction	0.81		
Customer Interaction \rightarrow Satisfaction	0.77		

Interpretation: All correlations are strong and positive, with Productivity & Workflow showing the highest correlation with satisfaction. This suggests that improving productivity directly enhances user satisfaction with Jugl.



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5.5 Regression Analysis

To identify which factors most significantly influence overall user satisfaction, a multiple regression analysis was conducted. This method helps isolate the individual contribution of each predictor while controlling for the effects of others. The analysis shows that productivity and usability are the strongest predictors of satisfaction, followed by communication. Customer interaction, while positive, had a comparatively weaker influence. The regression results are summarized in the table below.

Predictor	Standardized Beta (β)	p-value
Constant	2.15	
Usability & Interface	0.31	0.001
Productivity & Workflow	0.39	0
Communication & Collaboration	0.25	0.032
Customer Interaction	0.19	0.088

Model Summary:

- Constant (Intercept): 2.15
- $R^2 = 0.76$
- Adjusted $R^2 = 0.74$
- F = 38.7 (p < 0.001)

Regression Equation:

- The standardized multiple linear regression equation (using standardized Beta coefficients) is:
- Predicted Outcome (Y)=2.15+0.31(U)+0.39(P)+0.25(C)+0.19(CI)

Where:

- UUU = Usability & Interface
- PPP = Productivity & Workflow
- CCC = Communication & Collaboration
- CICICI = Customer Interaction

Interpretation: The model explains 76% of the variance in user satisfaction. Productivity & Workflow is the most significant predictor, followed by Usability. This highlights the importance of both functional performance and ease of use in determining overall satisfaction with Jugl.

VI.SUGGESTIONS

- 1. Enhance Workflow Automation: Introduce rule-based triggers and smart scheduling for repetitive tasks.
- 2. Improve Mobile UX: Focus on low-data design with regional language support.
- 3. Boost Communication Capabilities: Add multimedia messaging, group task notes, and notifications integration.
- 4. **Customer Update Channels:** Enable SMS and voice alerts for real-time service updates.
- 5. Introduce In-App Tutorials: Contextual guides can ease onboarding for non-tech users.
- 6. Custom Reporting Tools: Let managers configure dashboards with KPIs relevant to their business.

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