

Analyzing Global User Sentiments on Laptop Features: A Comparative Study of Preferences Across Economic Contexts

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Abstract : The widespread adoption of laptops has become essential to modern lifestyles, supporting work, education, and entertainment. Social media platforms have emerged as key spaces where users share real-time feedback on laptop performance, providing a valuable source of data for understanding consumer preferences. This study leverages aspect-based sentiment analysis (ABSA) on 1.5 million tweets to examine how users from developed and developing countries perceive and prioritize 16 key laptop features. The analysis reveals that consumers in developing countries express higher satisfaction overall, emphasizing affordability, durability, and reliability. Conversely, users in developed countries demonstrate more critical attitudes, especially toward performance-related aspects such as cooling systems, battery life, and chargers. The study employs a mixed-methods approach, combining ABSA using the PyABSA framework with expert insights gathered through a Delphi panel of ten industry professionals. Data preprocessing included cleaning, filtering, and aspect extraction from tweets. Universal issues such as battery efficiency and fan performance were identified, reflecting shared challenges across markets. However, priorities diverge between regions, while users in developed countries demand high-performance models with advanced features, those in developing countries seek products that offer strong value for money and long-term durability. The findings suggest that laptop manufacturers should adopt a market-specific strategy by developing differentiated product lines. For developed markets, the focus should be on cutting-edge technologies, enhanced cooling solutions, and comprehensive warranty services. In developing markets, emphasis should be placed on affordability, versatile port options, and robust designs. Additionally, the study highlights the importance of universal charging solutions and continuous sentiment monitoring to adapt to evolving consumer needs. This research offers practical insights for manufacturers seeking to optimize product development and marketing strategies for global markets, ensuring enhanced user satisfaction and long-term competitiveness. Future studies could explore multi-source data integration and conduct longitudinal analyses to capture changing trends over time.

Keywords : consumer behavior, durability, laptop industry, sentiment analysis, social media analytics

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