Abstract

The hospitality industry has been applying newer technologies in their operation for operational efficiency, better customer service, competitiveness and overall better productivity. Among several technologies, the Electronic Distribution System (EDS) is considered as one among the most promising technological innovation in the hospitality industry. The objective of this study is to analyze the perception of employees of hospitality industry towards electronic distribution system technology.

In this study, the hospitality organizations which are using EDS technology were only targeted, and the actual user employees were considered for analysis. A total of eighteen hypotheses were proposed based on the broad literature review. Considering the determinants for the adoption of technology in the hospitality industry from the literature, this study proposed a conceptual model integrating two well-established models such as Technology Adoption Model (TAM) and Technological-Organizational-Environmental (TOE) framework. The conceptual model included ten important determinants such as: (i) relative advantage, (ii) complexity, (iii) compatibility, (iv) upper management support, (v) training and education, (vi) technological competence, (vii) competitive pressure, (viii) trading partner support, (ix) perceived usefulness, and (x) perceived ease of use which are affecting attitude towards using electronic distribution system.

A survey questionnaire was administered to gather pertinent data. Data were collected from the hospitality organizations that are operating in the state of Odisha in India and have implemented EDS technology in their properties. They were approached through their industry association “Hotel & Restaurant Association of Odisha” (HRAO). In total 438 responses from the employees from 83 hospitality organizations were collected.

Sample characteristics were analyzed using frequency distribution. The quality of the measures for selected constructs was evaluated through the reliability check of each constructs considering their Cronbach’s alpha. Using a Structural Equation Modeling (SME) approach, the proposed model was revised, and a modified conceptual model of integrated TAM and TOE for EDS technology adoption in the hospitality industry has been proposed. Observing the modified model’s goodness of fit, strong significant coefficient and correct signs of the constructs, the model establishes itself applicable to the analytical study of the perception for the application of EDS technology by the
hospitality industry. Hypotheses were tested through the SME analysis considering the standardized coefficients between the constructs. The findings supported fifteen proposed hypotheses and rejected three hypotheses. Further interrelationships among the constructs were observed through direct, indirect, and total effects.

Interesting inferences were drawn from the research results. It is observed that relative advantage of EDS technology has a strong impact on perceived ease of use, but it does not have much impact on perceived usefulness. Hospitality employees perceive EDS technology is complex, but it is very useful, and they are benefitted out of it. Compatibility had very strong impact on perceived usefulness and perceived ease of use of EDS technology. The research result shows that upper management support has a positive effect on perceived usefulness, but it does not affect the perceived ease of use of EDS technology. Training and education, and technological competence had a positive effect on both perceived usefulness and perceived ease of use of EDS technology in hospitality organizations.

Further, it is observed that competitive pressure and trading partner support have a positive effect on attitude towards using EDS technology. It is also observed that perceived usefulness, and perceived ease of use are having a positive effect on attitude towards using EDS technology in hospitality organizations.

The research was restricted to the hospitality organizations operating in the geographic area of the state of Odisha in India. Similar research may be undertaken in another part of the world to revalidate the findings.

This study has accomplished the broad objectives of evaluating several dimensions which are affecting adoption of EDS technology in the hospitality industry from the employees’ perspective. The findings are expected to provide hotel managers, scholars timely knowledge and insights on how to strategically embrace EDS.

**Keywords:** Electronic Distribution System (EDS); Perception; Technology Adoption; Hospitality Industry