

Use of technology increases hotel occupancy

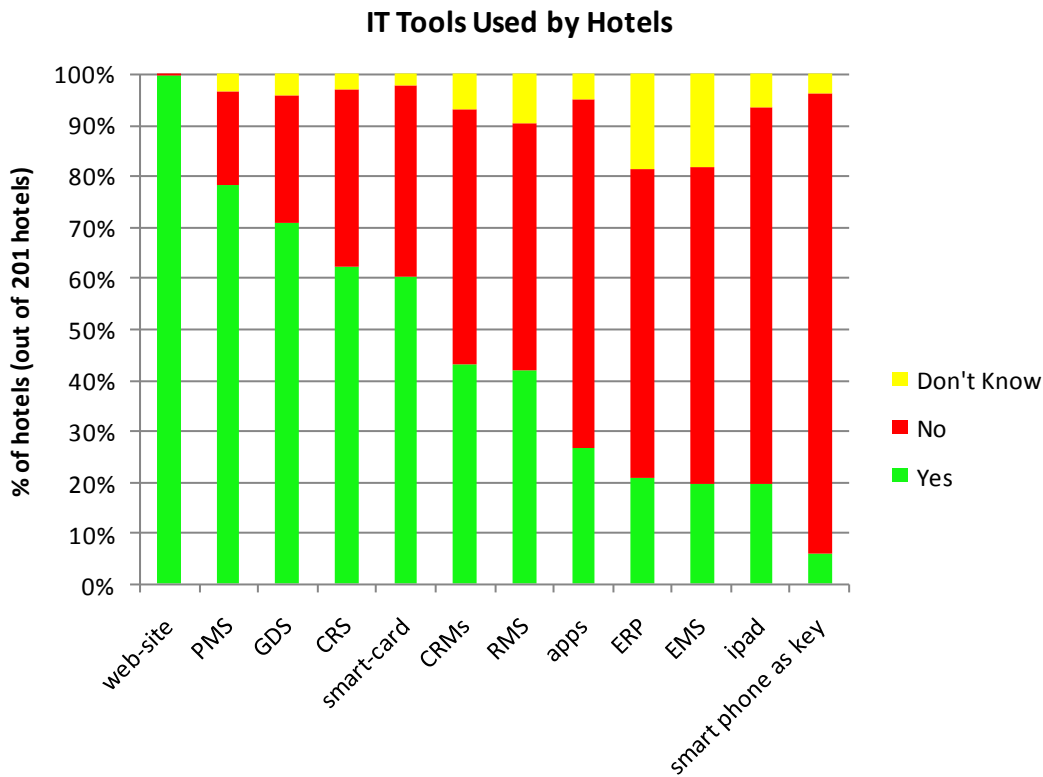
By Karolin Kokaz Pucciani and Jean Hurpé

The aim of this research is to study the current trends concerning technological tools (IT) used in the hospitality industry; and to investigate the relationship between the use of IT tools and hotel occupancy rates. The chosen population for this study is the Rooms Division of 4 star hotels around the world, as they are the most likely candidates to use these tools. The chosen methodology is an online questionnaire which was fully completed by 101 hotels in 50 different countries.

Current IT Trends

201 hotels answered questions related to the use of 12 IT tools. The top 5 most used IT tools were found to be the website (99.5%), PMS (78.1%), GDS (70.6%), CRS (62.2%) and smart cards (60.2%), with an average of 5.5 tools used per hotel (see Figure 1). Average hotel occupancy rate in the sample was 61%. The impact of the use of IT tools on the hotels' occupancy rate was analyzed both from the participating hotels' perspectives and through an in depth statistical analysis.

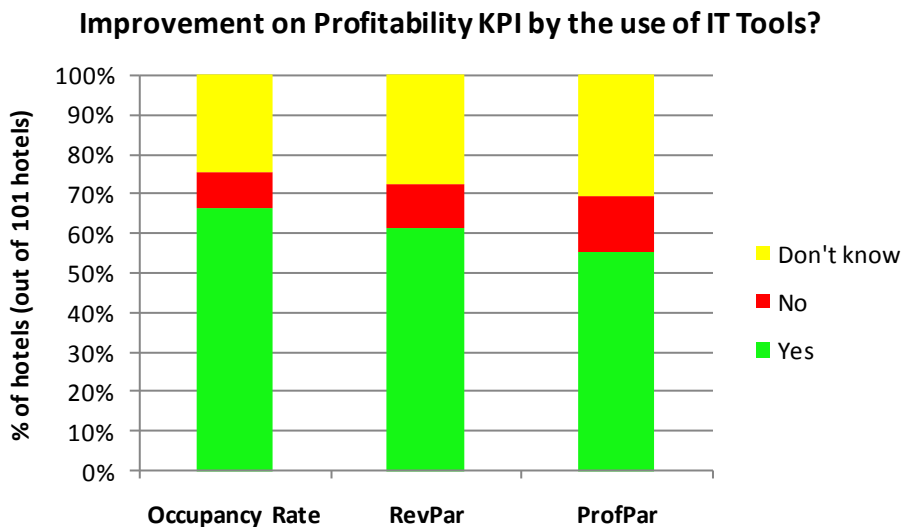
Figure 1: The Distribution of IT Tools Used by Hotels in the Sample



Impact on Hotel Occupancy

The hotels participating to the study were asked the following question: “*In your opinion, please tell us if there is improvement in your hotel’s profitability by the use of IT tools and technologies. Is growth achieved in occupancy rate, revenue per available room (RevPar), and profit per available room (ProfPar) by the use of IT tools and technologies?*” A majority of hotels state that they believe the use of IT tools improves the hotels’ profitability (through improvements in occupancy rates, RevPar, and ProfPar). 66.3% of hotels believe this positive link exists for occupancy rates (see Figure 2).

Figure 2: Hotel Perception regarding the impact of IT tools on Hotel’s Profitability Key Performance Indicators (KPI)



To investigate the relationship between the use of IT tools and hotel occupancy rates, an in depth statistical analysis including box plots, means plots, regression analysis, ANOVA (normality and equal variances assumptions met), and cluster analysis were performed. The means plots show an increase in occupancy with respect to the use of IT tools. The positive relationship between occupancy rate and IT tools is statistically significant (linear regression p-value 3.2%). This relationship is more significant (ANOVA p-value 0.3%) when clustering is applied to the hotel sample with respect to the number of IT tools used (the sample was divided into two groups/clusters according to their usage of IT tools: low cluster uses ≤ 3 tools, high cluster uses ≥ 4 tools; and a significant positive relationship between IT tools used and occupancy rates was found). These statistically significant results indicate that hotels which use a higher number of IT tools have higher occupancy levels.

Further relationships are analyzed based on staff’s knowledge of these tools, updates and training provided, indicating the necessity of these factors. The positive relationships identified statistically, also backed by hotels’ optimistic perceptions, emphasize the importance of investing in IT tools along with educating the staff about these tools through providing updates and training.

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