

Integrating ICT in Business Operations of Hotel Industry for Competitive Advantages Leading to Higher Organizational Performance

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Abstract

The purpose or idea behind undertaking this research work is to understand the link between ICT applications such as email, online reservation system, social media, search engine optimization (SEO), Enterprise Resource Planning, etc. and the hotel performance in terms of financial growth, customer acceptance and social contribution. Apart from this, the present paper intends to find out whether ICT application adds any competitive advantages to be achieved in hotel industry in terms of productivity, low cost of operations, value addition, customer service, quality or sustainable growth and development. The respondents selected were the employees of the hotels in the Eastern part of India. Structural equation modeling (SEM) was applied to carry out the empirical research using 220 sample data. A well validated survey instrument was used to collect the primary responses from the employees. The results showed that competitive advantages gained due to ICT applications have significant effect on hotel performance.

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1. INTRODUCTION

Increasing competition, specialized workforce and customer expectation has shown the hotel industry

to search for more competitive advantages. The hotel industry has looked to “Information and Communication Technologies (ICTs)” for dealing with quickly changing the environment of doing

the business. Digital tools of various business processes and functions use “Technologies of information and communication”. The use of ICT includes not only the software, hardware but also groupware, telecommunications, internet, and human ware to develop programs, processes, systems to help run the business effectively and efficiently. Over the last twenty years, ICT interest and investment have increased significantly in the hotel industry. E-mail, Intranet, Internet, online reservations, electronic transactions, web applications, and social media applications are some of the applications of ICT that have been applied in every industry. The hotel’s employees including the owners, managers and the staffs believe that integrating ICT in the business processes have enhanced the performance of the hotels. One of the major indicators of performance in the hotel industry is productivity, because it is related to efficiency. ICT plays a pivotal role in improving productivity which is a major issue for survival in the long term. The Internet has also been recognized as extremely crucial for collection of information, communication, online purchases and dissemination, as well as a distribution channel for and being a distribution channel for hotel markets. With the context described above, the objective of the paper relies at studying the impact of ICT applications in hotel’s business operation on organizational performance through competitive advantages.

2. LITERATURE REVIEW

Buhalis (2004) mentioned that “information communication technologies (ICT)”, as it turns out to be progressively hard to recognize every component of the innovation, ought to be viewed as the whole scope of gadgets, registering and media transmission advancements and all equipment, software and Netware required for the improvement and activity of the "information structure" of an association. Consequently, ICT

make up a coordinated arrangement of arranged gear and programming that empowers successful information preparing and correspondence for authoritative advantages.

ICT plays a significant role in the travel industry as well as hospitality business. The coordination of ICT in the hotel business is exceptionally fundamental for the achievement of inns (Bethapudi, 2013). Actually, a few researchers accept that ICT can prompt monetary improvement of countries (Aziz et al., 2012). The vital objective by most lodging managers is to incorporate ICT along with the travel industry with an end goal to empower greater openness, accessibility of a wide assortment of items and administrations, perceivability of data, and age of consumer loyalty (Bethapudi, 2013). This exertion involves the use of PC’s, programming, and media transmission gadgets to store, control, convert, secure, send, and get information. The development in the utilization of arranged PCs is one of the most critical patterns to date (Ansah, Blankson, and Kontoh, 2012). In light of this advancement, the inns are utilizing the innovation to figure visitor interest for reservation, the executives of visitor administrations, representing visitors, information the executives, income the board, reservation the board, and yield the executives (Ansah et al., 2012). Yield the executives, for instance, can give a superior control of room stock and furnish lodgings with an abundance of information and data that could expand room inhabitation and income.

The movement as well as the travel industry segment is considered as one of the biggest and suffering businesses in the world. Its financial status strengthens the noteworthy extent of the economies of several countries and it is perhaps the largest business around the world. Its commitment to the net national item, work and local advancement are archived all around and, dissimilar to several different divisions, it is

estimated to develop the increment of relaxation time significantly in a coming long time. The travel industry is known to be data serious. This segment is additionally open to the components of the fragmentary “improvements in the data and correspondence advances (ICT)” field. The trading of data has a good impact at each phase in the business cycle of the travel industry item or administration. The data obtained should have the option to stream rapidly and precisely between the customer, mediators and every one of the travel industry providers associated with overhauling the customer's needs. Accordingly, ICT (Information Communication Technology) has become practically inclusive element of the travel industry. Its capacity enables the data to be overseen more properly, and moved overall right away. Accordingly, it has a significant effect on the techniques for activity of the travel industry. Notwithstanding, it does not influence the similarity of capacities and divisions. It provides a good impact on the advertising and dispersion capacities, while leaving other's which increasingly requires the human contact. Correspondingly certain areas, for example, the aircrafts, have been the sharp adopters of the innovation, utilizing it to oversee and practice their activities as well as increase the vital favorable position. Others, specifically the inn part, have been less eager, yet are continuously awakening to the advantages which are brought up by the electronic appropriation. Be only that as it is given in the manner by which ICT is reshaping the fundamental structure of both business and society when the thing is done, and the purchasers' expand the interest for data, its significance for the achievement of a travel industry venture can just develop later on. Therefore, the travel industry ventures need to comprehend, join and use ICT deliberately so as to serve their “objective markets, improve their effectiveness, expand gainfulness, upgrade benefits and keep up long haul productivity”. From the above literature

reviews, one conceptual model is developed for further empirical analysis as shown in Figure 1. The research hypothesis formulated which has to be tested empirically is as follows:

H₁: Competitive advantages have considerable mediating impact on the relationship between ICT applications and hotel performance.

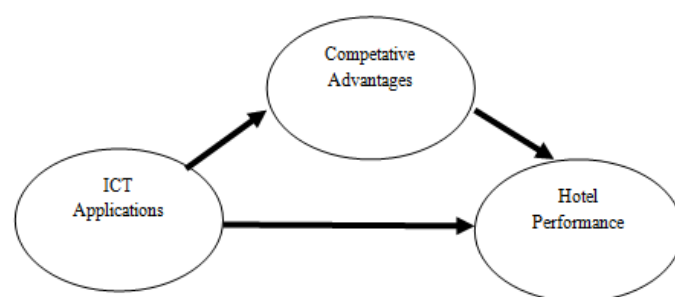


Figure 1: Conceptual Model

3. METHODS AND DESIGN

The questionnaire survey method was used in collecting primary data. Data were collected from employees of the hotels established in eastern part of India. Samples were selected using multistage sampling. In the first stage, stratified method of sampling was adopted. The stratification was done based on the class of hotel, i.e the star ratings of hotels. Once the strata were identified, hotels were being selected at random from each stratum. In the second stage, the respondents of each hotel were selected based on convenience sampling method covering all the major departments of the hotel. This procedure yielded 220 usable data records. The questionnaire consisted of questions pertaining to ICT Applications, competitive advantages and hotel performance, where all the measurement items were borrowed and modified from past literatures (Vogel, 2005; Grace, Nyandoro, 2016). The responses were collected in a “5-point Likert scale” through personal contact approach. The data collected through survey instrument were entered into an Excel spread sheet and then transferred to SPSS-22 data sheet

for further processing. Amos software was used for structural equation model based on the outcomes of “Confirmatory Factor Analysis (CFA)”.

4. RESULTS & DISCUSSIONS

All the primary responses were collected through one well validated survey instrument with respect to three major study constructs, namely Information Communication Technology (ICT), Competitive Advantages (CA), and Hotel Performance (HP). Each of the rating scale items were levelled with 5 – point Likert scale where the score of 3 indicates neutral opinion and above 3 indicates strongly acceptable response. Table 1 shows the descriptive statistics of all the study constructs with its mean and standard deviation values. As interpreted from the table all the mean values are above 3 showing agreeable response to each of the research items. Again the lower level of standard deviation indicates lesser variance with respect to all the responses.

Table 1: Descriptive Statistics

Variables	Mean	Std. Deviation
ICT	3.2455	0.43937
CA	3.0235	0.51961
HP	3.3000	0.50140

The goal of the research was the examination of direct relationship among the ICT Applications and hotel performance, and mediating impact of competitive advantages on this. “Structural Equation Modeling (SEM)” was used for this purpose in which ICT Application was treated as exogenous variable and hotel performance was treated as endogenous variable. Competitive advantage was taken as mediating latent variable in between these two (Figure 2).

Table2. SEM results of direct relationships

Path	β	B	S.E.	C.R.	P	CMIN/df	GFI	CFI	RMSEA
ICT → HP	0.419	0.508	0.115	2.564	0.060	3.282	0.95	0.91	0.072

Table 2 indicates structural equation model outcomes referring to the direct relationship between ICT & HP along with the goodness of fit

indices. The impact of ICT on HP was found to be insignificant with acceptable range of fit indices.

Figure 2: Structural Equation Model showing mediation effect of Competitive Advantage

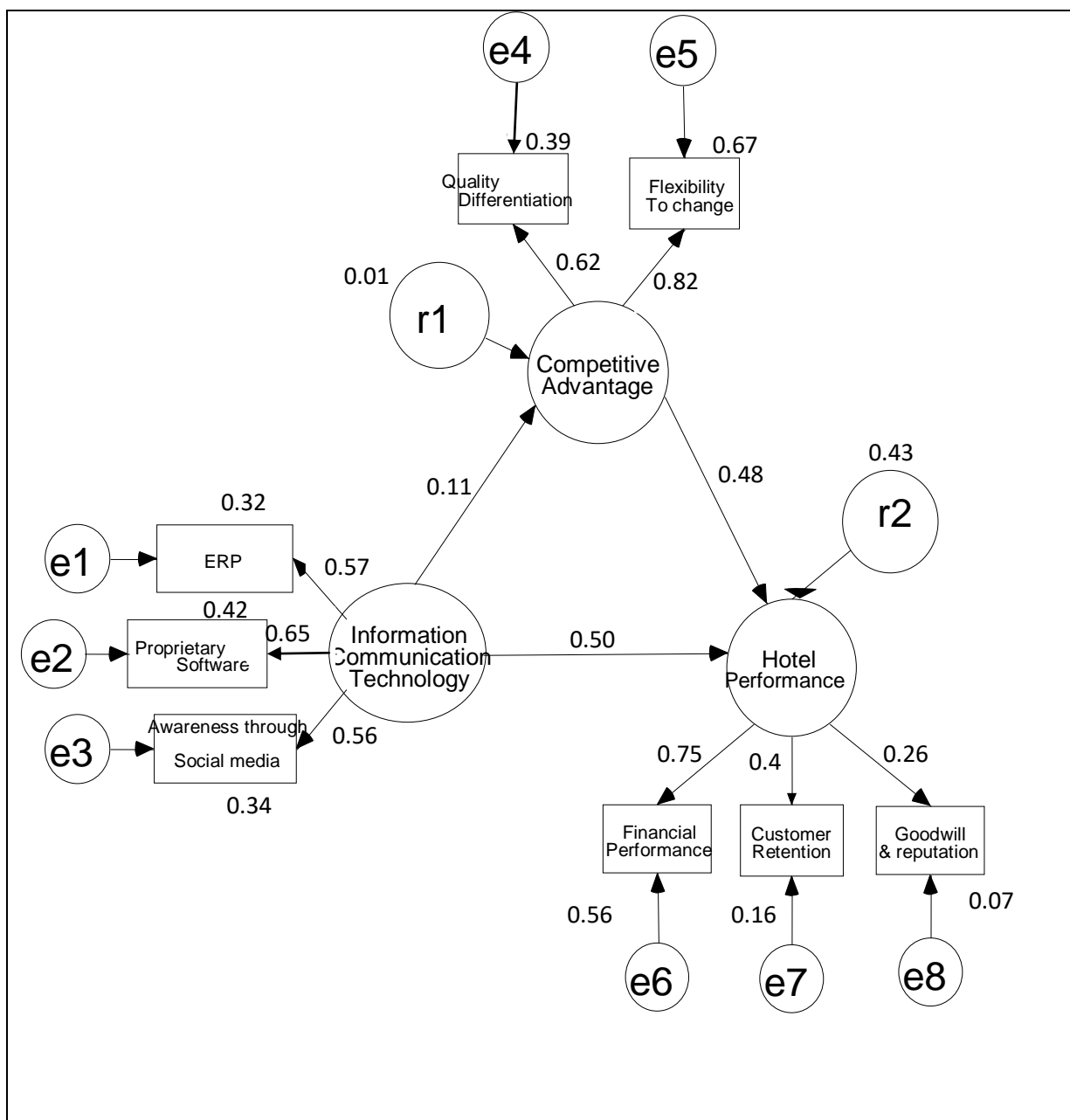


Table 3 gives a detailed assessment of ICT Application with hotel performance through the mediating variable competitive advantage. An analysis was conducted for the identification of the impact of mediating variable on the relationship between ICT Application and the performance of hotel. The result showed the existence of full mediating effect between exogenous ICT Application and Hotel

performance, which indicated the empirical support to the research hypothesis taken. Table 3 gives the empirical results which support the existence of full mediating effect of competitive advantage between ICT application & hotel performance. The model fit indices provided evidence towards the validity of the empirical model.

Table 3 SEM results of mediating relationship of competitive advantage

Sl. No.	Path	β	B	S.E.	C.R.	p	CMIN/df	GFI	CFI	RMSEA
1	ICT → CA	0.449	0.353	0.12	1.032	0.302				
2	CA → HP	0.576	0.575	0.078	2.411	0.016	2.064	0.96	0.92	0.074
3	ICT → HP	0.069	0.054	0.096	2.334	0.020				

5. MANAGERIAL IMPLICATIONS & CONCLUSION

This empirical research showed the strong and indirect influence for hotel performance by ICT, through the achievement of competitive advantages. This is especially true in developing country like India where ICT is used much less than in most developed countries like USA, Germany, and France etc. Therefore it is concluded that for hotel sector, ICTs reengineer and rationalize processes and services as well as the indirect increase in firm's performances is achieved through competitiveness factors. Although the investment in ICT is low, its productivity potential has been proven to be significantly effective. The most pivotal finding of this study was that competitive advantage fully focuses on the relationship among the ICT Applications and hotel's performance. So the top management of the hotel industry must give equal weights to both ICT Applications and competitive advantages for higher level of hotel performance. The current empirical study would be very much helpful to the entrepreneurs in hospitality sector and hotel managers in effective implementation of ICT applications in the hotels which would increase the hotel performance in terms of financial performance, customer retention and goodwill.

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