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Information and Communication Technological Amenities in the Hotel Industry

Vaibhav Verma, Research Scholar MMICT&BM (Hotel Management), MMDU Mullana, Ambala
Dr. Sheetal Thakur, Assistant Professor MMICT&BM, MMDU Mullana, Ambala

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Abstract:
Managers in hotel industry face a perplexing workplace on account of its administration qualities. Information and Communication Technological Amenities (ICT) in their everyday procedure may help them in complex workplace and for better employment results and better customer satisfaction. The point of this examination is to distinguish how Information and Communication Technological Amenities influences the everyday procedure of lodging administrators and supervisors' viewpoint towards Information and Communication Technological Amenities (ICT) and the territory of investigation is close to handle correspondence near field communication (NFC).This investigation will support hotel and other friendliness related enterprises to pick up information about the goal of workers towards received advancements.

As the research investigating the hotel representative's point of view towards Information and Communication Technological Amenities (ICT) all sort workers and positions were considered, reviews were chosen as the most proper information gathering strategy. The example covers a scope of hotel in India.

The discoveries uncovered a beneficial outcome on hotel worker's aim to utilize NFC in their day by day work and conversation and administrative ramifications are proposed. Advances in keen appliances will have a greater impact in future. Lighting, temperature, blinds, alarms, television, radio and room service will all be controlled from a single tablet gadget, or from a single app that guests can download and login from their own device. The effectiveness and deliberateness of executing each new innovation relies upon the choice of end clients (workers and customers) to acknowledge and utilize it. Not with standing the numerous changes that are being brought on by these technological innovations amenities, they are there to enhance, not to replace, the core offerings of a accommodation business.

Keywords: *Hospitality Industry, Technological advancements, Technological amenities, Digitalization, Technology, ICT, Amenities.*

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I. INTRODUCTION

The rapid advancement and commercialization of information and communication technological amenities (ICTs) have induced hotels and different hospitality- related enterprises to progressively embrace ICT innovations (Ham, Kim &Jeong, 2005). Hotels have done so in the hope that the new ICT-based procedures will help them improve their working efficiencies and ability to meet customers' needs (Agag&Masry, 2016). Different ICTs enable hotels to improve performance, enhance administrative efficiency, and promote their businesses internationally (Hospitality Technology, 2016). While ICTs had been utilized in the hotel industry since the late 1970s in the form of computerized reservation and global distribution systems, it was only in the 1990s that ICTs began to have a significant effect on the industry (Ham et al., 2005). The impact of ICTs on the infrastructure of the hospitality industry has had substantial strategic implications for industry leaders. An increasing reliance on IT systems is the way of the future and is expected to continue to significantly alter operations (Pongsak& Sunil, 2007).

Regardless of the rapid development, ICT innovations are still underutilized in the hotel

industry (Deloitte, 2017). According to a Deloitte (2017) report, innovation in the hotel industry lags far behind that in other industries. Over the last few decades, researchers have sought to determine the effects of IT on performance and productivity by using numerical measurements. Prior studies have found a positive relationship between investment in IT and the productivity and performance of a company (Alpar& Kim, 1990; Mahmood& Mann, 1993). A key element in any Invistigation of ICT applications is whether customers' expectations are being met in the service delivery process. Investigating employee perception of ICT is thus important (Ham et al., 2005).

While prior literature has covered applications of ICTs in the hotel industry, hotel employees' perceptions of ICT in the Indian hotel industry have not yet been studied. To understand how ICT can improve the performance of hotel employees, this study aims to examine ICT applications in the Indian hotel industry, focusing on employees' perspectives based on the Technology Acceptance Model (TAM) as a theoretical background. TAM is an information technology theory which has developed to study the usage of newly introduced technologies (Venkatesh& Davis, 2000). Specifically, this study investigates the effects of near-field communication (NFC) technology on hotel employees by using the technology acceptance model as the theoretical framework. NFC is a communication protocol which helps to share data from one device such as a Smartphone to other receivers with a contactless separation of 4cm (Curran, Millar, &McGarvey, 2012).

This study focuses on the Indian hotel industry because India is a developing nation and has exhibited rapid growth in the field of ICT (Hospitality Technology, 2016). The hospitality business is considered, an important industry sector in India and, heavily relies on the innovations of ICT (Hospitality Technology, 2016). India's growing economy and population have led to an extraordinary level of development. For instance, in October 2015, the nation reached a remarkable 1 billion mobile subscribers. In the hospitality business, ICTs have transformed how employees manage their work environment and processes (Buhalis& Leung, 2018).

For this study, hotel employees were selected based on their daily interaction with ICT services, direct connection to the performance of the hotel, and unique knowledge of the organization. These characteristics imply that these employees make the most decisions about ICT.

The results of this study provide suggestions to the Indian hotel industry to help them decide whether they need to allocate resources to ICTs and make decisions about particular IT applications. Results of this study can help analyze situations, consequences, and results before hotels adopt NFC.

This study also contributes to the academic literature by demonstrating the usefulness of ICTs to hotel employees in India. Moreover, this study explores the relationship between NFC and hotel employees based on the technology acceptance model.

II. LITERATURE REVIEW

The Hotel and Tourism Industry in India

The hotel industry plays a significant role, contributing to the overall economy of India. International brands, such as Radisson Hotels India, the Park Group, ITC, and the Taj group play a major role in attracting foreign investment. The hospitality industry is one of the top 10 sectors in India in attracting foreign direct investment (FDI) (Boora, 2017). From 2000 to 2015, the hospitality industry attracted US$ 8.48 billion in FDI, according to statistics by the Indian Department of Industrial Policy and Promotion (DIPP) (Boora, 2017).

The government of India is continuously taking initiatives to make India as a global tourism hub. In the budget of year 2018-2019, the Indian government has sanctioned Rs.1,250crore (equivalent to US$ 183.89 million) for the development of tourism industry under Swedish darshan, pilgrimage rejuvenation and spiritual augmentation drive, (India Brand Equity Foundation [IBEF], 2018). This scheme has identified 13 regions like heritage, tribe, eco, north east, costal, Himalaya, Buddhist, Krishna, wildlife, desert, rural, spiritual and Ramayana for infrastructure development of tourism (IBEF, 2018). The government and tourism

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industry closely work together to expand the E visa scheme that could attract more foreign tourists to India (IBEF, 2018).

To encourage the growth of tourism in India, Indian government proposes several marketing initiatives such as incredible India and Athiti Devo Bhava (IBEF, 2018). The government has also launched a new visa category which is medical or M visa to encourage medical tourism to the country (IBEF, 2018).

Technology Development in the Hotel Industry

Development is advancing at a quick rate, especially in the accommodation and the travel industry ventures. Direct client cooperation is being displaced without anyone else output and self-check exchanges, which have enabled customers to be increasingly independent (Ham el al., 2005). An examination at the College of Oxford has uncovered that by 2033, upward of 47% of cutting edge occupations could be performed by means of computerization (Pullen, 2017). Coming up next are some mechanical advances that impact slants in the friendliness business (Accommodation Innovation, 2016).

Beacons

Beacons points are posts that normally use Bluetooth. These shafts are intended to cooperate with iOS and Android systems so as to pass messages between an association and its visitors, comparably to a metal indicator (Rajath, 2017). Retailers, lodgings, air terminals, and presentation lobbies have used guides adequately. In any case, the lodging business has been delayed to investigate the utilization of signals (Buhalis and Leung, 2018). By the by, some chain inns have begun to understand that guides can be used to build their benefits. For instance, a large number of Marriott's outlets have set up reference points at lodging problem areas, for example, spas, eateries, and bars (David, 2016).

Guests who have introduced the Marriott application on their cell phones limited time messages about advantages, for example, limits in spas and cafés when they pass by the signals (Accommodation Innovation, 2016).

Marriott Inns has likewise received an elective system for using reference points by setting them up near the doors of lodgings to streamline the enlistment technique. As guests enter the inn, the reference points get information from the guests' PDAs, which encourages lodging staff to respect the guests by name (Buhalis and Leung, 2018). Likewise, reference points close to lodging entryways exhort housekeeping staff about guests not being in their rooms (Accommodation Innovation, 2016). Without a doubt, lodging industry pioneers are hurrying to find various uses of reference points.

Beacons points can be used to assist guests with finding their way inside an inn or can furnish guests going into their rooms with data on the most proficient method to work in-room civilities (David, 2016). Since the signs offer two-way correspondence, they can likewise be used to get data on the propensities for visitors (Buhalis and Leung, 2018).

Guides permit lodgings to assemble data about where guests are investing a large portion of their energy inside the inn or the pinnacle utilization times for various offices, for example, the health room, pool, and bar (Rajath, 2017).

Property Management System

The main (PMS) in the inn business got accessible during the 1980s (Morosan and Jeong, 2008). This PMS was a programming application used to arrange the operational components of the front office or nourishment and refreshment orders. In lodging phrasing, the PMS is an inn working framework, which is used widely in neighborliness organization (Winata and Mia, 2005). It is a mechanized framework that helps with the organization of properties, hardware, and upkeep, all through a solitary program. The product can deal with different lodging tasks identified with visitor appointments, visitor subtleties, online reservations, charging, retail locations, obligation claims, bargains, publicizing, occasions, nourishment and-drink stock organization, HR and fund, upkeep organization, quality organization, and various luxuries. A PMS may converge with different sorts of outsider

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programming, for example, central reservation programming, pay or yield organization structures, focal reservation frameworks, back-office capacities, entryway locking applications, housekeeping the board, pay TV, imperativeness organization, moment card endorsement, and channel organization frameworks (Winata and Mia, 2005).

These frameworks have replaced antiquated, paper-based methods that would in general be both clumsy and inefficient. The old strategies were based on the client and server model. Today, most forefront PMS bolster web and cloud developments and offer items to clients through a help show (Morosan and Jeong, 2008). With the advancement of distributed computing, PMS for inns have gotten equipped for offering significantly more highlights. For instance, the frameworks can give online enrollment, room administration, in-room controls, visitor staff correspondence, and virtual attendants. These new functionalities are for the most part used by guests through their PDAs or through instruments in lodging anterooms and rooms. A helpful PMS ought to give precise information on the key execution pointers of the lodging industry, for example, the normal every day rate, RevPAR, and inhabitance rate (Morosan and Jeong, 2008). It ought to likewise help deal with the nourishment and drink stocks in the storeroom and help with settling on choices about what, how much, and how every now and again to buy. Choi and Kimes (2002) examined inn booking frameworks and introduced a diagram of inn advances. They portray the PMS as the focal point of all activities inside an inn and underscore its utility in taking care of room stock, visitor subtleties, installment data, mix with nourishment and refreshment the board, and retail locations for incorporated charging and revealing.

Mobile Communication

Customers are expecting innovation-driven processes for registering at hotels (Agag&Masry, 2016). Customers demand the ability to do everything from checking in at a kiosk to requesting room benefits, all with their smart devices, instead of having to stand in a queue (Kasavana, 2011). Because of digital development and online networking, visitors additionally expect excellent, customized connectivity in their rooms (Mitel, 2017). When hotel administrators invest in advanced applications for registration, room service, and other client-managed computerized features, they invest in the ability to customize the hotel experience for visitors (Mitel, 2017). These investments enable hotels to show a visitor's name on the front desk area at a computerized registration station or to display a guest's in-hotel and past purchases at a kiosk, which allows guests and employees to easily access this information.

Likewise, the "concierge in your pocket" idea is quickly gaining ground because it enables administrators to provide guests with helpful information about entertainment options, traveling facilities, and other administrative details. Hotel staff may not need to be at their PCs or to sit in their work areas (Agag&Masry, 2016).

Employees can use an internal messaging solution to send data to the housekeeping or concierge departments and inform them about late checkouts, special requests, or even emergencies. Such a system facilitates two-way communication between staff and administrators. Administrators can use this system to communicate with all staff members at various locations in the hotel. Thus, an internal messaging system is a cost-effective way for employees to communicate with each other (Agag&Masry, 2016).

Website

A large number of hotels have built their own websites to advertise themselves directly to customers (Agag&Masry, 2016). Non-franchise chain hotels require a booking engine application to be connected to their website to allow individuals to book rooms. One advantage of booking with hotels directly is access to the hotel's cancellation policies and the absence of a requirement for a deposit or an advance payment (Tony &Tse, 2013). Web-based booking engine applications are supported by a content management system. Websites are used for advertising, making bookings, registering complaints, collecting feedback, answering queries, and allowing guests to contact hotel staff, among other purposes. Online bookings can reduce employees' workload because websites are open 24 hours a day, 7 days a week, which means that

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employees need not remain in the front office all the time.

Making bookings online is also more reliable than using paper to make bookings and payments.
Furthermore, most hotel websites have a list of frequently asked questions (FAQs). Thus, guests who need help can find answers online. Complaint handling is another important function in hotel management, for which online systems provide a useful solution. Guests can also access their hotel's website to learn how to use amenities such as the television and air conditioner, avoiding the lengthy process of seeking clarification in person (Tony &Tse, 2013).

Near-Field Communication

NFC gadgets are utilized in contactless payment frameworks, similar to those used by credit cards and electronic ticket smartcards. These new frameworks utilize portable payment methods to supplant or supplement existing frameworks (Curran et al., 2012), and are known as contactless NFC (Nagashree, Rao, &Aswini, 2014).

NFC is also used for person-to-person communication and for sharing contacts, photographs, recordings, or files (Curran et al., 2012). Additionally, NFC-powered devices can act as electronic identity and key cards. Near-field communication offers high-speed connection with a straightforward setup that can be utilized to bootstrap more advanced remote connections (Morosan&DeFranco, 2016).
NFC comprises a set of short-run remote innovation, commonly requiring a separation of 10 cm or less. It works at 13.56 MHz on an ISO/IEC 18000-3 air interface and extends from 106 kbit/s to 424 kbit/s (Nagashree et al., 2014). It includes an initiator and a target, and the initiator efficiently creates an RF field that can control a separated target (Curran et al, 2012). This enables NFC to replace unpowered tags, stickers, key fobs, or cards (Buhalis& Leung, 2018).

Hotels have utilized cards with magnetic strips as room keys for many years. These cards are easy to use and simple to issue, but have serious limitations as regards security, interoperability, and convenience (Kim, Lee, & Ham, 2013). They can be lost, leaving guests locked out, and can also be easily duplicated, which can lead to serious security issues. NFC can facilitate the use of various applications with a single card or device, which means that a single card or gadget can be utilized to open doors, make payments, earn loyalty points, lease a bicycle, or use local transportation (Curran et al., 2012). Hotels can improve visitor encounters through more sophisticated administration and seek opportunities for advertising. Since NFC-based cards and gadgets can be designed for various circumstances and multiple purposes, visitors can earn additional items through prize programs or paid membership, and the card itself can be updated with new features and functions (Curran et al., 2012).

Morosan&Jeong, 2008 examined the use of NFC mobile payments in hotels and found that most employees and consumers were concerned with the security of payments; once the use of NFC entered the business, it became easier to securely and reliably make payments.
To utilize NFC, a customer must first set up a portable pay application on his or her gadget by inputting a payment method, such as Visa. In contrast, Mastercard numbers are entered into the gadget directly as device account numbers, or DANs (Nagashree et al., 2014). The NFC protocol starts at the point of sale (POS), when the purchaser opens the payment application and contacts the POS terminal utilizing NFC (Kassner, 2014). To guarantee security, the DAN is combined with a unique transaction code to form unique transaction data, which is approved by the buyer. The buyer's device approves the transaction and transmits the information back to the vendor's POS framework, which then carries the transaction through its back-end protocols until the customer's bank receives the transaction data (DAN and exchange data), processes the payment, and transmits confirmation (Morosan&DeFranco, 2015). Numerous studies have discussed various technologies used in hotels (Alpar& Kim, 1990; Mahmood& Mann, 1993); however, few have explained NFC in the hotel industry (Morosan, &DeFranco, 2015); therefore, this study focuses on effects of NFC on employee behavior.

Theoretical Background

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The Cap is a hypothesis that clarifies the utilization of data innovation from the client's viewpoint, in light of the degree to which the client accepts that utilizing IT frameworks will be liberated from exertion (Venkatesh and Davis, 2000). Data innovation appropriation and use in the work environment stays a focal worry of data frameworks research and practice. Notwithstanding amazing advances in equipment and programming abilities, the alarming issue of underutilized frameworks proceeds (Venkatesh and Davis, 2000).

The Hat clarifies the apparent handiness and saw usability of ICT from the representative's viewpoint. Seen helpfulness is characterized as the degree to which an individual accepts that utilizing a framework will improve their activity execution, and saw usability is characterized as the degree to which an individual accepts that utilizing the framework will be liberated from exertion. These two factors influence the person's expectation to utilize ICT. For instance, if an individual's collaborator proposes that utilizing NFC is simple, it causes the individual to trust it is helpful, which thusly influences their expectation to utilize the innovation (Venkatesh and Davis, 2000). The Hat has contributed from multiple points of view to the friendliness business, for example, by giving a methods for examining the connection among innovation and inns (Huh, Kim, and Law, 2009; Wang, and Qualls, 2007) and among workers and clients (Agag and Masry, 2016; Morosan and Jeong 2008).

In view of the above conversation, this investigation proposes the accompanying speculations, concentrating on NFC innovation. The applied structure is displayed in Figure 1.

H1: The apparent value of NFC positively affects hotel representatives' aim to utilize NFC innovation.

H2: The apparent convenience of NFC positively affects hotel representatives' aim to utilize NFC innovation.

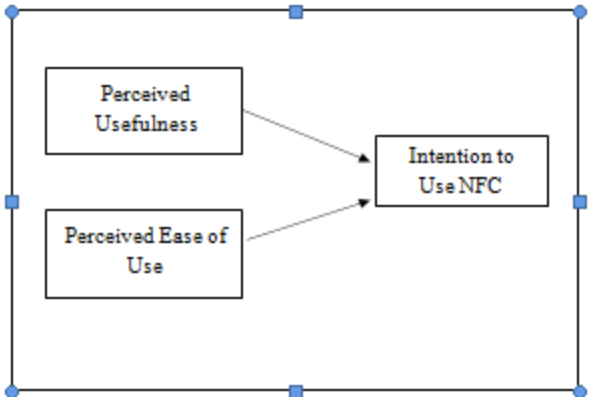

Figure 1Technology acceptance model.

III. METHODOLOGY

Study Design

The primary aim of this study is to determine the impact of ICT on the daily work of hotel employees. It is difficult to measure this impact directly; thus, this study utilizes the TAM as its theoretical framework. The impact of ICT is measured from the perspective of hotel employees. The hierarchy of the hotel includes employees, supervisors, and associates, all of whom were selected for this study based on their level of daily interaction with ICT in hotels. The TAM helps to understand the theoretical background of technology from the human perspective.

A self-managed, online study was utilized to gather information. This study comprised of three segments. The first section included the cover letter, explaining the purpose of this study and human rights as participants. The subsequent segment comprised of inquiries identified with utilization of NFC in representatives' work. The subsequent segment was isolated to three subsections which are, Saw helpfulness showed whether the individual accepted that utilizing NFC improved their activity execution. Seen convenience demonstrated that NFC was anything but difficult to utilize. As per the Hat, the goal to utilize is affected by apparent handiness and saw convenience. These inquiries were received from Venkatesh and Davis (2000). The last area included inquiries in regards to socioeconomics of the members which can help to breakdown information into gatherings of respondents. All things in the overview depended on a 7-point Likert

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scale running from 1 (Strongly disagree) to 7 (Strongly agree).

Descriptive analysis was performed to summarize the mean and standard deviation of the participants, and regression analysis was used to define the relationship between independent and dependent variables and conclude whether NFC improves the performance of the employees.

Data Collection

Simple random technique was used to choose the participants from a large population. Five-star hotels in India were chosen for the surveys because India is a developing country that is striving to be a global member of the tourism and hospitality industry. In 2019, 8.8 million people traveled to India. Hotels were chosen randomly across different states in India. An online, self-administered survey was used to collect the data in April 2019. Hotel employees were asked to distribute the survey across their departments through email.

IV. RESULTS

Sample Profile

The population of this study was hotel industry in India. Due to accessibility surveys were sent to hotel employees through mail and 113 usable surveys were collected.

The samples were collected from the following cities: Mumbai, MH; Hyderabad, TS; Delhi, UT; Chennai, TN; Bangalore, KA. These five cities are the top markets of hotel industry in India. As Mumbai is the central hub to many hotels, distribution of surveys was started from Mumbai.

The samples were collected from the following hotels: Marriott Group of Hotels, Taj group of Hotels, Oberoi Group of Hotels.

According to Table 1, 61.9% participants were male and 34.7% were females, of which 64.3% used NFC as a customer and 78.0% used it as employee. Majority of participants completed undergraduate with a percentage of 41.5% and a master's degree of 36.4%. 61.0% participants were from an urban hotel and remaining in suburban and rural with 27.1% and 8.5% and majority of the participants 79.1% were a fulltime employee. 55.1% of the participants have less than 5 years of experience in hospitality industry and 41.5% have 1 to 2 years of experience in their current position. Most of the participants were frontline supervisors and middle management.

Participant Characteristics

Item	Frequency (N=113)	Percentage
Does your hotel have NFC?		
Yes	109	94.0
No	7	5.9
Have you used NFC as a customer?		
Yes	77	65.3
No	38	32.2
Have you used NFC as an employee?		
Yes	92	78.0
No	23	19.5
Which department requires you to use NFC?		
Front of the house	27	22.9
Back of the house	17	14.4
Food and beverage	26	22.0
Accounting	20	16.9
Housekeeping	20	16.9
In which department are you currently working?		
Front of the house	28	23.7
Back of the house	19	16.1
In which department are you currently working?		
Food and beverage	26	22.0
Accounting	22	18.6
Housekeeping	15	12.7
Highest level of education completed?		
High school	7	5.9
Undergraduate	49	41.5
Master's Degree	43	36.4
Doctoral Degree	13	11.0
What is your gender?		
Male	73	61.9
Female	41	34.7
Location of your Hotel		
Urban	72	61.0
Suburban	32	27.1
Rural	10	8.5
Age		
Under 20	1	0.8
20-25	46	39.0
25-30	43	36.4
30-36	19	16.1
35-40	4	3.4
Above 40	1	0.8
Type of employment		
Full time	94	79.7
Part time	20	16.9
Years of experience at current Position		
From 1 to less than 2 years	49	41.5
From 2 to less than 3 years	29	24.6
From 3 to less than 4 years	19	16.1
4 years or more	7	5.9
Years of experience in the hospitality industry		
From 1 to less than 5 years	65	55.1
From 5 to less than 10 years	21	17.8
From 10 to less than 15 years	8	6.8
15 years or more	1	0.8
Employment level		
Frontline employee	29	24.6
Frontline supervisor	37	31.4
Middle management	37	31.4
Senior management	11	9.3

Descriptive Analysis

Table 2

Mean and Standard Deviation of Variables

Item	Mean	Standard deviation
Intention to use		
I intend to use NFC in my daily work	6.04	.976
I may use NFC in future at work	6.12	.814
Perceived usefulness		
Using NFC improves my performance at work	5.73	1.063
Using NFC improves my productivity at work	5.97	.949
Using NFC increases my effectiveness at work	6.02	.906
I find NFC useful in my job	5.92	.937
Perceived ease of use		
My interaction with NFC is clear and understandable	6.00	.756
Using NFC does not need a lot of mental efforts	6.07	.923
Perceived ease of use		
I find NFC to be easy to use	6.24	.848

The perceived usefulness of NFC was measured by four statements in the survey. Of the total

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participants, 38.9% agreed that using NFC improves their performance at work (M = 5.73, SD = 1.063), and 41.6% agreed that using NFC increases their productivity at work (M = 5.97, SD = 0.949). Furthermore, 47.8% agreed that using NFC increases their effectiveness at work (M = 6.02, SD = 0.906), and 46.0% agreed that NFC is useful in their job (M = 5.92, SD = 0.937).

The perceived ease of use of this technology was measured by three statements. Of the total survey participants, 51.3% agreed that their interaction with NFC is clear and understandable (M = 6.00, SD = 0.756), 41.6% agreed that using
NFC does not need much mental effort (M = 6.07, SD = 0.923), and 46.0% strongly agreed that NFC is easy to use (M = 6.24, SD = 0.848).

In addition, the intention to use NFC was measured by two statements. Of those who participated in the survey, 47.8% said they intended to use NFC in their daily work (M = 6.04, SD = 0.976), and 48.7% stated that they may use NFC at work in the future (M = 6.12, SD = 0.814). Table 2 explains the descriptive analysis of the participants which is, the mean and standard deviation of the participants.

Results of Regression Analysis

Table 3				
Regression Analysis				
R	R^2	Adjusted R^2	Std. error of the estimation	Durbin Watson
.603[a]	.364	.352	1.212	2.096

Table 3 explains the regression analysis results, which shows that 36.4% of variance in Intention to Use can be explained by Ease of Use and Usefulness. Durbin Watson result shows a value of 2.096 which explains there is no auto correlation. The regression equation is as follows:

Intention to use = 2.216 + .236 (Ease of use) + .221 (Usefulness)

Table 4: Regression Model

Model	Sum of squares	Df	Mean square	F	Sig.
Regression	92.291	2	46.146	31.428	.000[b]
Residual	161.514	110	1.468		
Total	253.805	112			
Note: b = beta.000					

Regression analysis was used to test if the usefulness and ease of use significantly predicted intention to use, which explained 36.4% variance. Results identified perceived usefulness significantly predicted intention to use (β = .409, p < .000), and perceived ease of use also significantly predicted intention to use (β = .301, p< .001), supporting Hypothesis 1 and Hypothesis 2.

Referring to H1, perceived usefulness has positive effect on intention to use (M = 23.64, SD = 2.787). Referring to H2, perceived ease of use has positive effect on intention to use (M = 18.31, SD = 1.913). Table 4 explains both regression and residual models, sum of squares of regression is 92.291 and residual is 161.514 with a total of 253.805, degree of freedom basically indicates the independent values which is 2 and 110 with a total of 112, sum of squares are 46.146 for regression and 1.468 for residual, the F value is31.428 and significance is.00

V. CONCLUSION AND DISCUSSION

Discussion

This examination was directed to look at the utilization of NFC by hotel workers. It is critical to take note of that NFC is a well-known type of installment and correspondence today. Inns are endeavoring to acquaint current advances with improve the experience of their visitors. This examination gives some proof that inn representatives need to utilize NFC in their everyday work.

Despite the fact that scientists have analyzed the effect of NFC on hotel clients (Morosan&DeFranco, 2016), scarcely any examinations have researched the impact of this innovation on inn workers. Along these lines, this examination paper gives observational help to future investigations on NFC in hotel industry.

With respect to H1, the mean reaction of representatives toward the convenience of NFC was

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5.73 and higher, 46.0% of representatives concurred that utilizing NFC is helpful in their work. An item is characterized as helpful on the off chance that it very well may be utilized in an important and profitable manner. As per the Cap, adequacy implies accomplishment at delivering wanted outcomes, with 47.8% of the representatives reviewed concurring that utilizing NFC expands their viability at work. Moreover, 41.6% of representatives concurred that utilizing NFC builds their profitability at work. At long last, 38.9% of representatives concurred that utilizing NFC builds their presentation at work. Employment execution improves when a framework requires moderately less exertion to be utilized and, moreover, is much of the time utilized.

As to H2, the mean reaction of representatives toward the convenience of NFC was 6.00 and higher, with 51.3% of the workers studied concurring that the NFC they use at work is clear and justifiable. Also, 46.0% of workers concurred that NFC is anything but difficult to utilize. Additionally, 41.6% concurred that utilizing NFC needn't bother with a lot of mental exertion, past research incorporate (Curran et al., 2012).

Taking everything into account, H1 (the apparent convenience of NFC positively affects inn representatives' goal to utilize this innovation) had a higher mean reaction than H2 (the apparent usability of NFC positively affects inn workers' expectation to utilize this innovation).

Theoretical Implications

Results of this study provide implications. First, the findings of this study would help in advancement of adopting new technologies in hotel industry and also help in understanding the intention of using new technologies in employees' perspectives and valuable to further examine how technologies can help employees. Secondly, people who are new to hospitality industry can expect to read the major trends about the hotel industry in general and particularly about India.

The findings can be used to enhance the understanding of behavior of employees towards new technologies and how to use TAM to better analyze them. The introduction and literature review can be used as an empirical data on the technology advancements and results and discussion can help understand the outcome of the study and how to use it.

Managerial Implications

Initially, preparing ought to be given to representatives to guarantee that they comprehend the advantages of NFC and how to use this innovation in their work process. This preparation ought to be led toward the start of a worker's profession, so that in time the individual experts the abilities required to utilize NFC, which should additionally rouse the person in question to present new advances in the inn. To ensure that the preparation is complete and valuable, mentors from It very well may be enlisted for a brief period or off-the-work preparing can be given.

Second, android and iOS cell phones are on the whole outfitted with NFC innovation, which is a significant advance forward for present day innovation and can be used by administrators to make their representatives' work forms simple. By using NFC and a visitor's cell phone, representatives can look at visitors in and in less time than that taken by conventional registration and registration methodology. The visitor's data, including charge and Master card data can be gathered just by waving the cell phone at the NFC gadget, making the procedure simple and quick. As NFC can likewise supplant a room key card, it isn't important to make a key card for visitors each time they check in; rather, they can utilize their cell phones as key cards, which lessens the expense of making these cards. Besides, utilizing NFC as a key card guarantees security in light of the fact that the information is encoded and put away in a cell phone, which just the approved individual can utilize.

Third, NFC is an innovation that supports a solitary card having different applications. For instance, if an inn presents reliability program cards good with NFC, the cards can be used from numerous points of view as can be envisioned, for example, for registration and registration at a stand, making installments, procuring unwaveringness focuses, and giving room access as entryway key cards. This

innovation essentially lessens the expense of making various cards for different purposes and decreases the perplexity of overseeing and putting away numerous cards. At the hour of at first enrolling a visitor, lodging representatives make the visitor a NFC-fueled card, which gives lifetime access to all the enhancements accessible in the inn.

Fourth, as results propose NFC isn't a lot of easy to use, making NFC more easy to use may build the client's presentation.

Limitations

Only hotels in specific conditions of India were considered for this investigation, and other cordiality areas, for example, nourishment and refreshment were excluded. Moreover, diversion could have been considered to give a progressively complete image of how NFC can help workers in the neighborliness business.

Another constraint is that this investigation is planned to give just fundamental data about NFC. It doesn't consider the security issues related with NFC. Truth be told, NFC is related with genuine security issues, for example, robbery of individual data (Hayley, 2016).

Hotel representatives must choose the option to utilize the received innovations. It would be better on the off chance that they have a decision between various advancements and pick one which is valuable and straightforwardness to utilize.

Considering India's socioeconomic and religion hindrances there is still under business and ladies strengthening should be improved in the nation according to the outcomes, so look into in future ought to consider a created nation which ought to really anticipate the utilization of innovation in hotel industry.

VI. SUGGESTIONS FOR FUTURE RESEARCH

It will be useful to hotel industry and the board whenever cost and security are considered in future investigations. Close field correspondence (NFC) is a perplexing data innovation, for which one ought to consider actualizing system security to help ensure inns' and visitors' data. Likewise, this innovation additionally requires visit preparing to be given to representatives, each time the product is refreshed. As referenced in the writing survey, restricted investigations have broke down the connection among NFC and inn representatives; along these lines, a top to bottom examination considering all the significant components, for example, costs, organize security, and data security.

The discoveries uncovered a beneficial outcome on hotel industry representative's aim to utilize NFC in their day by day work and conversation and administrative ramifications are proposed. Advances in keen appliances will have a greater impact in the future. Lighting, temperature, blinds, alarms, television, radio and room service will all be controlled from a single tablet gadget or from a single app that guests can download and login to from their own device. The productivity and deliberateness of executing each new innovation relies upon the choice of end clients (representatives and customers) to acknowledge and utilize it. Not with standing the numerous changes that are being brought on by these Information and Communication Technological Amenities, they are there to enhance not to replace, the core offerings of a accommodation business.

REFERENCES

[1] Alpar, P., & Kim, M. (1990).A macroeconomic approach to the measurement of information technology value. Journal of Management Information Systems, 7(5), 55-69.
[2] Agag, G., & El Masry, A. A. (2016).Understanding the determinants of hotel booking intentions and moderating role of habit.International Journal of Hospitality Management, 54, 52-67. doi:10.1016/J.IJHM.2016.01.007
[3] Boora, S. S. (2017). Foreign direct investment and its impact on the Indian hospitality industry. African Journal of Hospitality, Tourism and Leisure, 6, 1. ISSN: 2223- 814X.

March-April 2020
ISSN: 0193-4120 Page No. 647 - 658

[4] Buhalis, D., & Leung, R. (2018).Smart hospitality—Interconnectivity and interoperability towards an ecosystem. International Journal of Hospitality Management, 71, 41-50. doi: 10.1016/J.IJHM.2017.11.011.
[5] Choi, S., &Kimes, S. E. (2002). Electronic distribution channels effect on hotel revenue management. Cornell Hotel and Restaurant Administration Quarterly, 43(3), 23-31.
[6] Curran, K., Millar, A., &Mc Garvey, C. (2012).Near field communication.
[7] International Journal of Electrical and Computer Engineering, 2(3), 371–382.
[8] David, K. (2016). Marriott bringing beacons to 500 hotels by the end of 2016.Geomarketing.
[9] Deloitte.(2017). Travel and hospitality industry outlook. Retrieved from http://www2.deloitte.com
[10] Ham, S., Kim, W.G., &Jeong, S. (2005). Effect of information technology on performance in upscale hotels. International Journal of Hospitality Management, 24(2), 281-294. doi:10.1016/J.IJHM.2004.06.01. Hayley, T. (2016). Square confirms, people do not like those chip credit cards.
[11] Hospitality Technology.(2016). Hospitality technology lodging industry technology study. Retrieved from http://htmagazine.com
[12] Huh, H. J., Kim, T., & Law, R. (2009). A comparison of competing theoretical models for understanding acceptance behavior of information systems in upscale hotels. International Journal of Hospitality Management, 28(1), 121- 134. doi:10.1016/J.IJHM.2008.06.004
[13] India Brand Equity Foundation.(2018). India tourism and hospitality industry analysis. Retrieved from http://ibef.org
[14] Kasavana, M.L. (2011). Tablets t-commerce: Innovative guest-facing applications. Retrieved from Hospitality upgrade.co
[15] Kassner, M. (2014).ApplePay: More secure or just different. TechRepublic. Retrieved from http://www.techrepublic.com/article/apple-pay-moresecure-or-just- different.
[16] Kim, H., Lee, D., & Ham, S. (2013). Impact of hotel information security on system reliability. International Journal of Hospitality Management, 35, 369-379. doi:10.1016/J.IJHM.2012.06.002
[17] Lam, T., Cho, V., &Qu, H. (2007). A study of hotel employee behavioral intentions towards adoption of information technology. International Journal of Hospitality Management, 26(1), 49-65. doi:10.1016/J.IJHM.2005.09.002
[18] Mahmood, M., & Mann, G. (1993).Measuring the organizational impact of information technology investment: An exploratory study. Journal of Management Information Systems, 10(1), 97-122.
[19] Mitel., (2017). Top 10 communication trends in hotel technology. Retrieved from www.Mitel.com
[20] Morosan, C., &DeFranco, A. (2016). It's about time: Revisiting UTAUT2 to examine consumers' intentions to use NFC mobile payments in hotels. International Journal of Hospitality Management, 53, 17-29. doi:10.1016/J.IJHM.2015.11.003v
[21] Morosan, C., &Jeong, M. (2008). Users' perceptions of two types of hotel reservation web sites. International Journal of Hospitality Management, 27(2), 284-292. doi:10.1016/J.IJHM.2007.07.023
[22] Nagashree, R., Rao, V., &Aswini, N. (2014).Near field communication.
[23] International Journal of Wireless and Microwave Technologies, 4(2), 20 Pongsak H., & Sunil S. (2007).ICT adoption propensity in the hotel industry. Consumer Markets & Marketing.
[24] Pullen, R. (2017). Automation of the hotel experience is the future. Retrieved from www.hotel newsnow.com
[25] Rajath, R. (2017). The promise of beacon technology for the hospitality industry.
[26] Lodging Magazine.Tony, S., &Tse, M. (2013).hotel: The Journal of Hospitality Marketing & Management, 22,
[27] Venkatesh, V., & Davis, F. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. Management Science, 46(2), 186-204.

March-April 2020
ISSN: 0193-4120 Page No. 647 - 658

[28] Wang, Y.,&Qualls.W. (2007).Towards a theoretical model of technology adoption in hospitality organizations.International Journal of Hospitality Management, 26(3), 560-573. doi:10.1016/J.IJHM.2006.03.008

[29] Winata, L., & Mia, L. (2005). Information technology and the performance effect of managers' participation in budgeting: evidence from the hotel industry. International Journal of Hospitality Management, 24(1), 21-39. doi:10.1016/J.IJHM.2004