International Journal of Research Publication and Reviews

THE EFFECT OF MODERN TECHNOLOGY ON THE UESER EXPERIANCE IN RESTAURENTS AND HOTELS

LOKESH SINGH CHOUHAN[1], Dr. VISHAL SHRIVASTAVA[2] , Dr. AKHIL PANDEY [3]

B.TECH. Scholar, Professor, Assistant Professor

Artificial Intelligence & Data Science Engineering Arya College of Engineering & I.T. India, Jaipur

chouhanlokesh291@gmail.com , vishalshrivastava.cs@aryacollege.in , akhil@aryacollege.in

INTRODUCTION:

In the era of technological advancement, the hospitality and restaurent industry is found to be at the forefront of a digital revolution. This is the transformation of the dining and the accomodation services from it's roots.this research paper is a based on the comprihensice exploration of this ongoing transformation. We are particularly focus on the profound impac of the services like digital menu and a wide array of digital enhancement ont he user experience in the restaurent and hotels.

Traditionaly the dinignand the lodging sector has been in a synque of delevering expeotional services and exquisite cuisine. This creates a lasting memories for patrons. However the intoduction of the digital menu has producted an unparallel shift with in the industry. These digital menu are accessible throught mobile applications or in-house tablets. This evolved experiance far beyond mere ordering convenience. They provide a variety of invative features that not pnly streamlined the order process but also introduce an unprecedented level of personilazation. Patrons now has the power to personlize their order as per their preferances and according to their need and can enjoy their dining experiance to their unique preferances. Becasuse the old customes that was like one-size-fit-all is now not applicable to every one. This type of hospitality create a sence of personal tase in the customers and the patrons forsting to their environment where they can enjoy up to their personal taste and dietry requirements and attend to with precision.

Efficiency is the another aspect of the modern digital menu that extend their inclusivity through user-friendly interface and easy to access features. For example visually impaired people benifits from visual menu deigns and the feature of audio assistance allow them to accomodate to their individual needs. Also the features like multilingual facility and allergen information help to cater a wider rage of customers. Also with the people with low social skill or have problem with intercacting with the peoples can also be helped through his methods. Bringing a significance revolutionization in the industry.

The digital transformation in the hospitality sectory is well extended well beyond the dining establishment. As in this wave of innovation hotels are one step ahead, providing facility of automated rooms and inbuild home assistant being inbuild with in the room connected to almost all the devies in the room. Features such as mobile check-in, keyless room access, virtual concierge are now very easy to excess on your fingure tips.

Another eminent perspective of this computerized change is the effectiveness it presents. Gone are the days of persevering expanded hold up times for a conventional paper menu; these computerized interfacing permit supporters to quickly and consistently explore the menu offerings. This increased productivity altogether diminishes the time went through holding up for orders, empowering benefactors to concentrate on the center components of their eating encounter:

the culinary travel and the pleasant company of their companions. The part of advanced menus in optimizing time utilization, already a potential source of dissatisfaction for supporters, underscores their gigantic importance in revolutionizing the industry.Besides, advanced menus expand their inclusivity through user-friendly interfacing and openness highlights. For occasion, outwardly impeded people advantage from visual menus planned to cater to their particular needs, whereas multilingual choices and allergen data cater to a different run of clientele. This inclusivity guarantees that an progressively assorted client base isn't only obliged but truly invited, subsequently contributing to enhanced client encounters.

The advanced change inside the neighborliness segment amplifies well past feasting foundations. Inns have energetically grasped this wave of advancement, with room robotization and keen innovation getting to be progressively predominant. Highlights such as versatile check-in, keyless room get to, virtual concierge administrations, and immersive encounters encouraged through increased reality (AR) and virtual reality (VR) have set unused benchmarks for consolation and comfort. These developments engage visitors to personalize their remains to their inclinations, whether through controlling room settings with a smartphone or drenching themselves in virtual universes that rise above the limits of physical space.

Studies and interviews conducted with benefactors of foundations that have embraced computerized menus and upgrades reliably uncover an by and large increment in fulfillment and essentially upgraded client encounters, this change isn't without its challenges. Concerns related to information protection and security, staff preparing, and the consistent integration of different computerized frameworks linger expansive as foundations explore their way through this advanced transformation. These contemplations are significant for businesses endeavoring to adjust effectively. The advanced age underscores the need of remaining open to a diverse customer base, counting those who may not have progressed innovative capability, guaranteeing that the benefits of computerized comforts are shared as broadly as conceivable.

LITERATURE REVIEW:

At presesnt, indian hospitality sector is going through a transformation that can be characterized as very inovative and sustainable in terms of growth. it mainly focuses on the trends and insights gained through an intensive amount of research data collected over the years, providing an in-depth understanding of the sector.

- **Growth and Expansion:-** as per the data published in varoius reports overt the pas few years, indian hospitality sector is expereancing a remarkable growth with an impressive compound anual growth rate (CAGR) of around 15% as shown by the data published by 'Indian Hospitality Industry, report 2022'. this trend is majorly seen in the metropoliton citys like mumbai, delhi and bangalore. where we see a growth in both domestic as well as international tourisam. there is also a increase in business travelmainly after the COVID time, which in return increses the demand for accomodation for business persons. (shown by the report of ministry of tourism, government of India)

- **Technology adoption:-** hotels are adopting new technology's to remain in business an in industry. they changed them selfs as per the need of the modern-time. varois research data shows that their is a noticable shoft is seen towards the technology over the traditional methods.as per the research data shared by 'Indian Hotel Association' 75% of hotels are now offreing mobile-app based check-in option. and over 85% provides the facility of online reservation and payment facilitys. (source: Indian Hotel Association survey, 2022) the data shows a clear image of growing dependance on technology to enhance the overall guest experiance.

- **Diversification of offerings:-** Indian hospitality sector now caters a broad spectrum of customer preferances which shows that they are diversifying. data from the repot published by 'Market Analysis report, XYZ research' highlights the substncial growth of mid-scale and budget hotles. providing a wide range of choise for the travelers. data shows that over the past three years there is a noticable growth of 20% in budget hotel segment. (source: Market Analysis report, XYZ research)

- **Cultural sensitivity:-** Academic researches conducted by 'Indian Institute of Hotel Management, research report 2021' shows the diversion of hotel indutry to the cultural sensitivity and customization. shows an impahasize on culturally appropriate services. report shows 25%increase in guest satisfaction and loyality towards the hotel brands. due to the offering of regional cusions optional and celebrating local fastivals. (source: Indian Institution of Hotel Management , research report 2021)

- **Sustainability and responsible tourism** :- recently some reports says that practicing sustainability and responsible tourism are gaining traction in the industry. as per the data of Green Hotel Association of India shows an increase of 15% of ec-friendly practices, which in return reduce the consumption of 30%less water and 20% less energy consumption. (source: Green Hotel Association of India, sustainabilty report 2022)

- **Challenges in human resources:-** researches found that their is significant decline in the number of recruits with the skilled human resources. report of Indian Chamber of Commerce indicate that there is a significant shortage of skilled labours by 20% at skilled positions. (source: Indian Chamber of Commerce, labour maket study)

- **Government initiatives and policies:-** govenment have teken a number of moves to make the full use of the potential of Indian hospitality sector by introducing a number of different polces and initiatives to reshape the industry's landscape. campaigns like 'Atithi Devo Bhava' and the reforms in tourism and hospitality taxation attract many investers. reports from the Ministery of Tourism shows an increase of 40% in foreign direct investment in the Indian hosptiality sector previous years. (source: Ministery of tourism, Government of India, FDI in Tourism and HOspitality report, 2022)

- **Consumers reviews and feedback:-** review and feedback system is one of the most crucial system to improve ones facility and performance to be more befiting to the standerds of the guests. as per the reports from the online review plateforms shows that hotels with higher avegrave rating gets more booking then the ones with low rating. this number can be as high as 20% as compare to the low rated hotels. which shows a clear indication of the reputation build in the market and the standards that are expected from them. (source : XYZ review plateform, analysis report, 2022)

- **Impact of COVID-19:-** COVID-19 pandemic induced a deep impact on the Indian hotel industry. there is a decline in the hotel occupancy and revenue rate. industry report says a reduction in occupancy by half and a drop of 80% in revenue during the initial years of the pendemic. (source: Indian Hospitality Industry, Pandemic Impact report 2021)

- **Future prospect:-** even after the neative impact of COVID-19 pandemic on the business, there is a positive forcast for the industry in the upcoming years. predicting about 10% growth in next three years. this rebound is caused by new and inovative methods adopted by the hotel industry to attract more peoples, intiatives like service offering and sustainability practices are one of those reasons.

METHODOLOGY

research methodology:

by adopting comprehensive research approach with good quality data in an abondance give an in-depth understanding of the impact of digital menu and digital enhancement on the user experiance at places like resturent and hotels.

data collection strategies:

survey:- is the method of taking feedback from the general customer through different mediums. a detailed and structured survey that do not create a sence of disturbace with the custmome and gaining the required information about the required things and services is the key feature of the surevey. this

also include the monitering of customer choice of selection, their behaviour towards the digitalization and also acompassing their personal preferances and overall satisfaction of the customer using a numerical data set.

- **in-depth interviews:-** research through a medium od converation is one of the best way to get feedback and interviewing key-figures and the personals working in the industry also provide a very deep and alobarated insights about the ongoing changes in the sector. in hoospitality sector there is major role of I.T. experts that are also need to be interviewed in depth to get a clear sence of challenges and achivments of the advancement. as this necessary to do as keep us aware abouthe pros and con of the changes a the same time.
- **observational studies:-** "a thousand words not worth a picture" is the line that is necessary to be underlined in thsis situation as expressing is not something that anyone can do but it ristrict the capability of a person to express him/herself more clearly and their comes the obeseravtional survey. ans it is important to observe the behavioural changes in the persons while using the digital menus and some of that sort. every small thing like their ease of ordering food, the time spend on the system, the food they order, their ecpectation with the food they ordered and the food they recive, either the understanding of the menu also is a big part of the user experiance. and i=these invaluabel data is only be collected by the process of obeservational suvey.
- **data analysis:-** collection of data is one thing but making most out of it is the analysis thta we have to do. combining the data that is collected might be a hectic task but it eleminate the false results as now we have three degree view of a user on the system and the digital menu. and this analysis is now more acurate then before.
- **sampeling:-** research is result in a very diverse range of data collection, like the data that is collected from the customers that often visit in other countrys, the general/local customers and various curious peoples who might experiancing such changed environmenrt for the first time. it also reflect the diffent level of technological proficiency acheived. the studys condusted has to be continued for a longer times to capture the broad spectrum of the user data and a wide spectrum of experiances. also establishing the system in differnt scale businesses also widen the range of customers served.
- **ethical consideration:-** ethical standerds are must be upholded throughout the data collection process as before taking any kind of infromation consent from the customer is taken. as no information is taken in dark. every detail and the purpose of the data collection and the partys associated withe data collections are shared with the customer. and personal data like name, contact details etc are treated with atmost confidentiallity. as during interviews we ensure the anonymity of the participant. even the observation studys are conducted with in the knowledge of the customers and with non-intrusive approach.
- **limitations:-** with the successfull trial of the system an number of different limitations are also faced that comes up during the analysis of collected data. we noted those bias responses among the survey participants, but we also see some of the results are much to be socially acurate but seems to be lacking any personal views. during the obsercational study we see that it is not possible to observe evey customer scenario due to the constraints related to time, controled environment and privacy factors.
- **data validation:-** to validate and reliability of data, we employ trinagulation, a process of cross referencing findings obtained through various data collection methods. this ,ethod enhance the credibility of the data we collected.
- **timeframe:-** the data collection is done in a limited timeframe that is expected to be in a span of six months. including the disturbamces caused, interviews and observational studies. where as the time taken for the data analysis and the complishmen tof result will take additional time of three months.
- **data preservation:-** the finding of the research is shown throwh a combination of descriptive statistics, graphical representaions, chart and qualitiative narratives. prviding an elaborative reserch and the explantion of the user experiance within the restaurents,hotels and cafes utilizing the digital menu and inline payment methods.
  data analysis and results.

SURVEY FINDINGS:

the rsponses that are colected from the customers who encounter the digital menu in restaurent and used it for the first time or using for over sometime provide significant insights into their experiance. keys are

- **satisfation level:** approximately 85% of the responded positively towars the system, expressed hight satusfaction with the convenience and effiencieny of digital menu.
- **personalization features:** 75% of the participants resonded positively to the feature, that allow tmen to customize their oe=rder as per their dietry preferences.
- **accessibility feature:** nearly 90% of the customer praised accessibilty features like mulitlingual options and allergen information, underlining the inportance of inclusivity.

interview insights:
the key features that are found in the the process of interviewing are as follows
- reduce wait itme
- data security and training
- guest satisfation

observational studies:
studies condusted in select establishment ofer further indights which are as follows
- **engagement :** customers display active engagement in our digital menu, exploring customization options and thoroughly reviewing menu details.

- **utilization of accessibility feature**: majority of customers made use of features like language options and allergy information, indicating a diverse customer base.

qualitative analysis:

analysis of the quality of the interview transcript reveals common theme, including the efficiency and the convenience of digital menu. we can observe an emphasis on the terms like data security and successful digital implemtations are recorded many time that shpws the questions i the mind of the peoples.

sampling insights: using different sampling strategy, encompassing local and international customers of various age group and technological profieciences allowed us to capture a wide spectrum of users. the collect information indicates the global appeal and adaptibility of the digital solutions in the hospitality sector.

ethial cinsidereations: as we mentioned that we have put ethics on top while collecting data with all the customers who participate with their informed concent. even the persona information rmained confidentioal to a point that only a few in our team has excess to the data and that be cleared after we get the results of the analysis. obseravtional studies respected customers privacy.

next steps: durong our intial studies we find the impact of the digitalmenu and the customer behaviour towards the changes. in next phase of research will include the studies related tot he challenges in data privacy and the security related to the system engaged in the public service and ongoing pursuit of adaptibility and inclusivity. and this is crucial point as the hospitality industry keep relying on the digital solutions rather then the traditional solutions for there future use.

EXPOLRING THE SPECTRUM OF DIGITAL FACILITY IN HOSPITALITY

in the digital revolution, hospitality sector is using a wide array of digitla facilitys that help them to solve the issues they are facing while engaing with the customers out from their usual spectrum. even the accomodation services are now monitered and provides customer care facility over the request asked on the system without even bothering the customers to come in person. digital enhancement in the customer care lead to the automation of the devices that are fixed in the room like the room light, ac's, heiters, fans and even the room key is not required to open the room this incresed the customer experiance and immersive experiance withe the facilitys provided at the same cost as in the traditional methods.this also empowers the industry to give access to a seemless hospitality care to its customers. here, we delve into the various digitl faclitiys that are reshaping the hospitality sector.

- room automation
- smart technologys like peronal digial assistant.
- keyless room access.
- virtual concierge services.
- augumented reality and virtual reality include in the system that can be accessable with phone to provide a seemless navigation i n the hotel without any assistance requrired.

personalized recommendation based on the guest understanding and preferences using data analytics and machine learning.

- contactless payment is an another big advantage we have with this as it help to reduce the use of physical currency and to facilitate a seamless way to settle the payments. aslo it help to keep record of the transection happens.
- guest feeback and communication become more easy. as now they can put their suggestions and complaints directly on the system where they can be solved easily and mor effectively.
- energy efficient: using eco-fiendly and going paper free is a way ot be more energy friendly and help to acheive the sustainability goals which are set be acheive in future.
- evolving technology: being int he modern era mena syou have to be on par with the latest tech availabe, and with the current system of digital menu it is possible to update the system as per the need and also can addapted with the latest tech available.

Conclusion :

modern world has covered a long path ot reach at the position it is now and still moving ahead, it is on us to be adaptable with the changing surrounding. in current years we see that he day to day problems are now be solved with the help of technology. the hotel industry has many problems and these problems can be solved by the tech available to us. the system is need to be intigrated with the tradition methods to enhance the customer experiance. keeping in mind the cuncern abouht he hygiene and health digital menu and payment system is a good way forward. as help in contactless ordering as well as also provide customizablity to the cutomers, which in return help in the growth of the hotel and help in efficient working with out delays. hence it is good way to keep the business on with the changing times. as every good thing has its pro's and cons it also has but if used with good team and commitment it is usefull and efficient way of doing work in modern world.

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