S.E. Society's

SNBP College of Arts, Commerce, Science & Management Studeis, Morwadi, Pimpri-18

Academic Year: 2023-24

Faculty Resaerch Paper Published

Sr.No.	Name of the author/s	Title of paper	Remark (UGC Care/Scopus/WoS List)
1	Dr.Sudhir Atwadkar	Role of IOT in making Smart Commercial Enterprise	UGC Care
2	Dr.Sudhir Atwadkar	E-Marketing: Its Impact On Business Performance & Factors Affecting Online Shopping	UGC Care
3	Dr.Sudhir Atwadkar	IoT Development In the Agricultural Sector	UGC Care
4	Dr.Sudhir Atwadkar	Business Analytics Is Backbone of Business: A Comprehensive Study	UGC Care
5	Dr.Sudhir Atwadkar	Impact of Work From Home During Covid-19 Crisis-A Review	UGC Care
6	Dr.Sudhir Atwadkar	Impact of CEPA Between India & UAE on FDI Flows page 175	UGC Care
7	Dr.Sudhir Atwadkar	Innovations In Education & Desired Future	UGC Care
8	Mrs. Swati Inamdar	The impact of social media in employee engagement of manufacturing organizations in pune city	UGC Care
9	Mr. Atul S. Jadhav	Effective methods of teaching and learning second language	Peer-reviewed,Refereed Journal
10	Mr. Atul S. Jadhav	Opportunities And Challenges of Nep 2020	Peer-reviewed,Refereed Journal
11	Mr.Viraj Mahangare	Digital Liabrary Practice in Undergraduate College	Peer-reviewed,Refereed Journal

ROLE OF IOT IN MAKING SMART COMMERCIAL ENTERPRISE

Ms. Umeshwari Patil, Research Scholar,
School of Computer Application Satya
Sai University of Technology & Medical Science, Sehore,
umeshwari_patil@rediffmail.com

Dr. Sudhir A. Atwadkar, Principal,
SNBP College of Arts Commerce Science& Management Studies, Pune.
sudhir.atwadkar@gmail.com

ABSTRACT
Technological modernization targets enhancing a thing or presenting a new method with a leading edge of technological features to distinguish it from before. Today's generation is used in a choice-making manner and retaining statistics. Technological innovation brings blessings and improves the great. The internet of things (IoT) is a combination of different devices interconnected with each other through the internet, usually called smart devices or gadgets. In forthcoming years, IoT technologies will offer a wide range of gadgets and almost change the lives of people.The Internet of things (IoT) is an era that permits everyone should talk about everything themselves over the internet via devices without using computers. The IoT is majorly characterized by 2 things – automation and connectivity. IoT plays an essential function in bringing automation to nearly every area of business. IoT is the backbone of the buzzword 'smart'. This paper is an overview-based paper and highlights the fundamental features of IoT that are accountable for bringing clever business generation.
Keywords: Generation, Internet, Automation, Connectivity, Smart enterprise

Introduction

Technological advancement aims at boosting a thing or introducing new ideas to perform procedures with new technological features to separate it from earlier. Once they may be brought inside the market, it's far considered as innovation and works as a bonus to the employer concerned or to most people. Era can be used to shield statistics, private decisions method, and other important facts that end in competitive benefits. Surely positioned, generation enables companies to maintain their ideas far away from their opposition. Technological advancement brings benefits that increase utility and provides higher goods and helps improve their ordinary lifestyle. The advantage of modernization is every so often gradual to materialize. This innovation develops opportunities for marketers to discover new organizations and establishes aggressive situations as incumbents' sources of gain decay. It additionally creates uncertainty and hazard for incumbents due to the fact its results may be best imperfectly predicted. Over 90 lakhs of things (physical gadgets) are presently linked to the internet, as of today. In the future, the quantity of gadgets will increase and whooping reach2000 crores. The purpose of the article is to analyze the role of technology in making smart businesses and understand the changing nature of enterprises. The present study is based on secondary data which is generated from various websites.

Review of Literature

Khattab (2016) discussed in his article Design and Implementation of a Cloud-based IoT Scheme that IoT technologies presently structuralized human life in different features. The three-layer architecture was highlighted to gather the data and analyze it. A prototype of architecture has been developed to show the performance.

Ferzund, Tausi & Suryani (2016), has found that to enhance productivity and reduce wastage there is the use of the state of the art technology. This system collects which is IoT based and uses real-time data which will help to take proactive and preventive actions to reduce losses. Awareness, representation, and interaction are the competencies of any IoT-based smart system.

Jaishett & Patil (2016) studied the system that connects physical sensing devices with the cloud and connects control mechanisms with the cloud which is an extensive analysis and problem-solving abilities to the overall architecture. In the present study, various architectural technologies have been studied and technological improvements have been suggested. And have been accepted over the periods to improve efficiency. The purpose of the present research is to study the control of technologies by using IoT.

Brewster, Roussaki, Kalatzis, Doolin, & Ellis (2017), has presented a system approach based architecture and outlined the challenges and constraints of an ESP deployment of IoT. Sectoral And Technological constraints are described in order to identify a set of technological requirements. This article also highlights the

requirements for interoperability challenges and explains the requirement authority of data, security, and privacy as well as new business models. The technologies interlinked with IoT have a great ability in view of environmental and social challenges.

Kumar, Ray, Dutta, Chattopadhyayi (2018) has discussed on Machine Learning and IoT integration solutions. The present article's work has highlighted how unmanned aerial vehicles are becoming more and more popular to meet the demands. IoT is interlinked with different technologies and more commercialization helps in increasing the demand.
Foughalia, Fathallah & Frihida (2018) has focused on Cloud IoT. The decision support system devices permit productivity improvement, decrease cost and affect the environment by predicting future actions.

Sinha, Shrivastava &Kumar (2019) has proposed architecture and a novel framework for a mobile-based application that would facilitate the application engineers to develop theapplications required for implementing the various functionality of the proposed system. Recent advancement in technology has paved the way for the optimization of traditional industrial practices.

Khoa, Man, Nguyen, Van DungandNam (2019), it has focused on the design of circuit diagrams of devices which is enhanced by a two-layer combination and operated by software optimization. The programme network is tested and controlled by the author.

Feng, Yan and Liu (2019) have emphasized that the probability of three WSN architectures is proved by corresponding tests. By measuring the normal communication time, the power consumption of three wireless communication technologies is compared. There is an effort to develop appropriate wireless communication technologies for smart agriculture through various IoT setups.

Khanna and Kaur (2019) have studied the primary aspects of IoT in which humans can control each action through the internet. This study assesses efforts taken by various scholars from the past and highlights the existing challenges faced along with future directions for research.

Madushanki, Halgamuge,Wirasagoda, & Syed (2019), it has discussed the essentials to increasing the efficiency of yield and farming processes that became cost-effective with new technology such as the Internet of Things (IoT).

Salam (2020) has found that the communication structures and architectures and underlying sensing technologies and communication mechanisms are presented with coverage of recent advances in the theory and applications of wireless underground communications.

Objectives of the Study

- To study the role of IoT in making Smart Commercial Enterprise
- To understand the fundamental features of IoT that are accountable for bringing clever business generation.

The Internet of Things

The internet of things (IoT) describes the group of substances which might be embedded with sensors, software, and other technology for the purpose of connecting and exchanging facts with other devices and systems over the internet. In the future, every industry faces the rapid requirement for IoT-based technologies. The internet of Things (IoT) is the connection of different physical gadgets that include electronics surrounding components.

Major Components of IoT

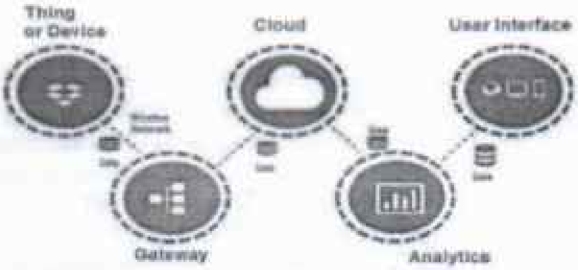


Figure No. 1: Major Components of IoT

Figure No.1:Major Components of IoT (Source: https://www.rfpage.com/what-are-the-major-components-of-internet-of-things/)

These structures are a way of communicating and interacting with each other with respect to the outside surroundings. In different phrases, IoT is a machine of interconnected objects, normally referred to as clever devices, via the net. With help of embedded systems, these substances engross the outside environment which enables those in making selections. Due to this reason, these devices can upgrade and become digitally permanent. Whereas IoT comprises the words internet and matters is universallyworking technology works as an individual key to shrinking this entire world to a tiny global that exactly depicts the definition.

The idea of IoT is categorized by defining functions:

1) **Automation** is the general concept of IoT that entails direct information through separate gadgets by using different hardware without any human interference.

2) **Connectivity** is enhanced by networking within one community on an international standard or scale to provide direct and easy access to diverse data. Things of IoT need to be linked to the IoT infrastructure. Everybody, anywhere, every time can join, this needs to be assured in all instances.

3) **Intelligence and identity** create the information and based on that make the decision from the generated data and records. Every IoT technology and device has a complete sole identification. Every solid identity is useful in observing the devices and instant solutions to any problem.

4) **Scalability** is the quantity of the performance of the device.Every day the various technologies linked with the IoT sector are increasing the way of performing day by day. As a result, a setup of IoTneeds to be able to handle the large development.

5) **Dynamic and Self-Adapting (Complexity)** as the changing nature of the technologies and increase in IoT gadgets ought to dynamically adapt themselves to the changing contexts and eventualities.

6) **Hybrid Architecture** There is a need for hybrid infrastructure for supporting special technological products to feature underneath the IoT network. The IoT application must be dynamic and have the flexibility to adapt the changes in working circumstances and move. This ought to allow us to work together with a variety of devices and be self-configured to attain positive capability and communicate. It is important for the tool and data safety, such as validation of devices and privacy and the truthfulness of data. It should be applied and work for walks safety operations at IoT parameters and achieve required necessities and requests. It should meet overall objectives and necessities consistent with the use case. However, all complete IoT systems are equal in that they represent the integration of four distinct additives: sensors/gadgets, connectivity, records processing, and a user interface.

IoT Architecture

IoT systems include Sensors, Actuators that senses the statistics and connect to the cloud via internet gateways and different verbal exchange media. After processing the data, it generates a series of actions for the mechanical activation or deactivation of additives without the want of a person. The community of artificial wireless substances is created through things which become entangled like gadgets, motors, and house appliances and even connect with herbal residing beings like plants, animals, and so on.

The parameter which converts the sensor wave into electrical alerts like temperature, movement, etc.IoT devices are enabled through the advanced sensors essentially. Smart farming is the automated monitoring, collecting and storing of the data and according to the contemporary condition of farm or yield to provide the inputs and satisfy the needs. This automation will be possible with modern technologies which are based on IoT. The variation in temperature, moisture, soil will be detected by the smart sensors. These sensors are communicated to the microprocessor systems which include advanced programming like Raspberry-Pi,Arduino forums. The alerts will be provided through the internet by using pathway such as Wi-Fi and notifies the operator.

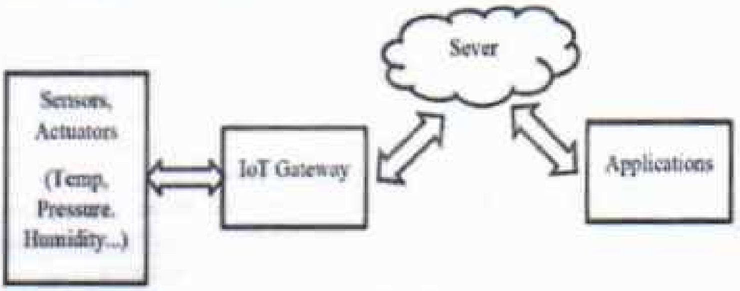


Figure No. 2: IoT Architecture

Figure 2: IoT Architecture (Source: https://iotdunia.com/iot-architecture/)

The function of actuators is to convert electrical signals into physical actions. Every sensor and actuators are transducers that convert one form of single into some other. The trade of data is the maximum essential key component in IoT. Therefore, sensors and actuators play an important role here.

Radio Frequency Identification (RFID) Tags are wireless microchips and are utilised to compute wi-fi wireless of something by means of cataloguing it over them. Such chips are used in various electronic banking cards, automobile devices and so forth seeing that interrelation of various substances through IoT is the main goal. RFID tags and IoT technologies work together and offer the precise identity of wireless networking to interrelate things. In many IoT devices the communication protocols are used for transforming the data and interlinking.

IoT Application

The Internet of the element in business could be a recreation changer in coming years by incorporating automation in each quarter of enterprise. IoT incorporation will assist in resolving problems in a brief way, enhances business operations & increases productivity. Whether or not it is a production business, manufacturing enterprise, provider enterprise, IT zone automobile zone, or medical career every commercial enterprise and every sector is prompted in an appropriate way with the help of IoT. In the imminent years, IoT-primarily based generation will provide superior degrees of offerings to practically change the manner human beings lead their day-by-day lives. Improvements in medication, electricity, gene healing procedures, agriculture, towns, and homes are specific examples where IoT is strappingly mounted.

A smart business manner accomplishes the smart purpose intelligently. A commercial enterprise can be made a wise one with the incorporation of technology in measuring, in analysing, doing time-bound and specifically assigned duties, and taking corrective actions as consistent with the need of the enterprise. IoT plays a critical position in making smart enterprises.

The internet is the factor which enables technology to talk everything with everyone via the internet through gadgets without using human interference. here comes the maximum important and time-honoured term in IoT known as 'clever' it is an automation-- the manner of reducing anthropological (human)interfere or involvement which enhance the gadget cleverness to carry out each enterprise (task) by using the situation, which can be accomplished by using IoTfound in four exceptional famous areas - manufacturing/commercial (40.2%), Healthcare (30.3%), safety (7.7%) and Retail (8.3%). In the following couple of years, IoT will discover in many areas smart Grids and electricity saving devices, smart towns and houses. It also provides the devices for healthcare, earthquake, radiation, gasoline, and so on. A number of the regions are noted in the table given under. It depicts how IoT involvement can make a traditional work region into a smart operating machine.

IoT in Smart Business Areas

With the help of IoT the traditional system of work can be converted into smart corporations. The primarily based structures of conventional systems can make into smart firms, which will support in increasing the effectiveness and extra productivity, creation and handling of Records and control can be effortlessly and effectively controlled with the implication of IoT in numerous areas. Real-time users can assist in making the gadget more productive. IoT is all about the improvement of areas and processes that gather data and provide solutions with various applications or devices which can make intelligent decisions.

Sr. No.	Traditional Business Areas	Smart Businesses	IoT Role
1	Education	Smart Education	Self-directed and useful real-time educational models, Student live tracking and attendance tracking systems
2	Inventory Control and Monitoring	Smart Inventory	Inventory management and tracking in real-time
3	Health Management	Smart Healthcare System	Keeping track of and managing patient records and medication records with expiration dates.
4	System for Personalized Health	Smart Personalized System	Medication and other regular examinations, Reminding the patient to act promptly
5	Management of Safety and Security	Smart Safety and Security	Child locks, home security systems, car safety locks Door safety locks, gas leak detection, and water leak detection alarm system
6	Tour and Travel	Smart tours and	Online vehicle monitoring, route detection,

	System	Travels	alarm systems, Booking and vehicle management system online.
7	System for Waste Management	Smart Waste Management	automatic trash management systems that do not require human intervention
8	System for Waste Collection and Segregation	Smart Bins	Wet, dry, and plastic wastes are accepted or rejected by the bin itself.
9	Pollution Management	Smart Pollution Management System	Automatic real-time pollution level detection and alert setting
10	Hotel Industry	Smart Hotel	Automatic table occupancy, food quality, and booking monitoring checks, increasing productivity while decreasing waiting time

Table 1: IoT in Smart Business Areas

Challenges in IoT

The IoT has been facing many challenges like the privacy and security of statistics data and analytics reports, and infrastructure for the development and other etc. The primary focus on the protection of privacy and security as it is the key purpose for different demanding situations such as authorities' participation. The united determination from the various authorities, society peoples and private sectors might play a crucial role in caring the protection of IoT from the harmful practices and the subsequent principles specified below-

- **Scalability-**Thousands of internet-based devices are interconnected in a wide network and a wide range of realities and facts are needed to be managed. The device that gathers, analyses, proceeds and stores the data from those IoT applications needs to be standardised. In the present situation, the evaluation of IoT technologies is interconnected with other devices through the internet. To store the unused data which is acquired from various devices need huge analytics tools and cloud storage for the clarification of such valuable information.
- **Interoperability-**Incorporation of different types of technologies required maximum flexibility to cover the nonetheless fragmented. The interoperability will support in setting up a not-unusual structure and the standard for IoT applications. Because the calibration manner remains absent loopholes, interoperability of IoT with legacy devices must be taken into consideration vital. Through the clever gadgets the loss of interoperability is stopping and actually connecting normal interoperable devices.
- **Lack of Government Guidance-**There is lack of guidance by government authorities. The government and regulatory bodies should come forward and develop rules and regulations by forming a committee to the protection and security of gadgets and people.
- **Safety of patients in the medical profession-** most IoT devices are left unattended, as they're linked with actual-international gadgets. If used on sufferers as wearable gadgets, any technical errors in protection may be existence-threatening for the patient.
- **Safety-** There is a most important issue of safety of such devices and the information. The majority of the devices are linked with international networks and gadgets are left unattended. If used on sufferers as wearable gadgets, any technical errors in protection may be existence-threatening. Safety facts protection is the predominant project. Except, the system concerned is big. IoT networks can also be a hazard. Consequently, device protection is likewise essential.
- **Protection and private privatives-** Here was no research on safety vulnerabilities and their enhancements. It ought to make sure Confidentiality, Integrity, and availability of private information of an affected person.
- **Design primarily based challenge-** With the development in era layout demanding situations are growing at a quicker charge. There were issues regarding design like constrained computation electricity, constrained strength, and constrained reminiscence which need to be looked after.

Conclusion

For decades, the concept of IoT is the mixing of various technologies – sensors, networks to screen and control devices. A recent combination of advanced technologies and marketplace developments is steering a new way for the IoT. The relationship between things and surroundings becomes more tangled and promises development. The prospect of IoT as the global selection of devices assured primarily exchange will be possible through the internet. The people reflect it with the consideration of what it means to be 'online'. Whilst the ability results are considerable, some of the potentially demanding situations may additionally stand in the way of this imaginative and prescient.

Now the traditional system is being replaced by the internet of things and there is a need to handle the demanding situation by maximizing the benefits and minimizing the risk. The growing issue is how people and organizations are engaged and encompass the internet and society connection with human social, private, and financial subsists. There is a need for polarised discussion to increase the benefits of IoT and decrease the risk.

In the following couple of years, IoT will be implemented in lots of areas especially in the service sector for different reasons. Very soon IoT will become a crucial part of human life. IoT is rightfully regarded as one of the most promising virtual technologies that will genuinely come to be greater, enormous and beneficial inside the nearest destiny. Even in a cutting-edge country, the abilities of IoT solutions are dazzling, and their blessings are tempting. However, it's farvital to comprehend that the mixing of IoT in an enterprise calls for quite a few efforts and competencies as a way to gain those benefits without suffering from its drawbacks. That's why the most affordable path of action is to apply the offering of accountable and experienced professionals on the way to get a powerful IoT answer. There is a need to adopt IoT technologies because IoT plays a crucial role in making a smart enterprise in the future.

References

Asyraf A. (2013). Wireless Sensor Based Remote Monitoring System for Agriculture Using ZigBee and GPS. Atlantis Press

Anusha A. Shettar, Shanmukhappa A. Angadi (2016), Efficient data mining algorithms for agriculture data, International Journal of Recent Trends in Engineering & Research (IJRET), vol. 02, no. 9, pp. 142-149

Atzori, Iera & Morabito (2010), The Internet of things: A survey, Comput. Netw. 54(15) (2010), 2787–2805. doi:10. 1016/j.comnet.2010.05.010.

Bagha & V. Madesetti, Internet of Things: A Hands-on Approach, Universities Press, 2015. ISBN 9788173719547.

Bandyopadhyay & J. Sen, Internet of things: Applications and challenges in technology and standardization, Wireless Personal Communications 58(1) (2011), 49– 69. doi:10. 1007/s11277-011-0288-5.

Bandyopadhyay, Sengupta, Maiti & Dutta (2011), Role of middleware for Internet of things: A study, International Journal of Computer Science & Engineering Survey 2(3), 94–105. doi:10.5121/ijcses.2011.2307.

Behzadan, A. Anpalagan, I. Woungang, B. Ma and H.- C. Chao, An energy-efficient utility-based distributed data routing scheme for heterogeneous sensor networks, Wirel. Commun. Mobile Comput. (2014). doi:10.1002/wcm.2474.

Cambra, J.R. Díaz and J. Lloret, Deployment and performance study of an Ad Hoc network protocol for intelligent video sensing in precision agriculture, in: Proceedings of AdHoc Networks and Wireless, INCS, Vol. 8629, Springer, Berlin Heidelberg, 2015, pp. 165–175.

Christopher B, Roussaki, Kalatzis, Doolin, & Ellis (2017). IoT in Agriculture: Designing a Europe-Wide Large-Scale Pilot. Elsevier B.V

Colantoni A., Monarca D., Laurendi V., Villarini M., Gambella F.& Cecchini M.(2018). Smart Machines, Remote Sensing, Precision Farming, Processes, Mechatronic, Materials and Policies for Safety and Health Aspects. MDPI.

Feng X. Fang Y. & Liu X.(2019). Study of Wireless Communication Technologies on Internet of Things for Precision Agriculture. Wireless Personal Communications

Foughalia, Fathallah & Frihida (2018). Using Cloud IOT for disease prevention in precision agriculture. Elsevier B.V.

Khattab A.(2016). Design and Implementation of a Cloud-based IoT Scheme for Precision Agriculture. IEEE.

Khoa T., Man M., Nguyen, Nguyen D. & Nam H.(2019), Smart Agriculture Using IoT Multi-Sensors: A Novel Watering Management System, J. Sens. Actuator Netw

Lin, Yu, Zhang, Yang, Zhang & Zhao W. (2017), A Survey on Internet of Things: Architecture, Enabling Technologies, Security and Privacy, and Applications, IEEE Internet of Things Journal, vol. 4, no. 5, pp. 1125-1142.

Madushanki R., Halgamuge , Wirasagoda & Syed (2019). Adoption of the Internet of Things (IoT) in Agriculture and Smart Farming towards Urban Greening. IJACSA

Rose K., Eldridge & Chapin L.(2015), The Internet of Things: An Overview - Understanding the Issues and Challengesof a More Connected World, The Internet Society (ISOC).

Salam A, (2020), Internet of Things in Agricultural Innovation and Security. Purdue University Libraries.

Sinha A., Shrivastava G, & KumarP. (2019). Architecting User- Centric Internet of Things for Smart Agriculture. Sustainable Computing.

Saha A., Saha J., Ray R., Sircar S., Dutta S. Chattopadhyay, Nath & Saha (2018). IOT-Based Drone for Improvement of Crop Quality in Agricultural Field. IEEE

Shruti A Jaishetty, Rekha Patil (2016). IoT Sensor Network Based Approach For Agricultural Field Monitoring And Control. IJRET

Sisinni, Saifullah, Han, Jennehag & Gidlund M. (2018), Industrial Internet of Things: Challenges, Opportunities, and Directions, in IEEE Transactions on Industrial Informatics, vol. 14, no. 11, pp. 4724-4734.

ISSN : 0974-006

84

Vol-84 No. 29,
January – June: 2023

मध्य भारती

मानविकी एवं समाजविज्ञान की द्विभाषी शोध-पत्रिका

CONTENT

E-MARKETING: ITS IMPACT ON BUSINESS PERFORMANCE AND FACTORS AFFECTING ONLINE SHOPPING

Dr. Sudhir A. Atwadkar Professor SNBP College of Arts Commerce Science & Management Studies, Pune Mail: sudhir.atwadkar@gmail.com
Ms. Umeshwari Patil Assistant Professor ATSS College of Commerce, Science & Computer Application, Pune Mail: umeshwari_patil@rediffmail.com

Abstract:

Day by day the global retailers focus on India due to high potential profitable market. The recent economic reform changes the Indian consumer psychology and adoption technological advances impacts on shopping patterns. However growing number of mobile users, there is diversification in shopping from traditional to online. Recently it is observed that there is boom in online sales which reflects on marketing strategies. Thus, it is necessary to study the factors influences to consumer online buying behaviour and it is impact of e-marketing on business performance. The present study is analysing the influencing factors to online buying behaviour. This study investigates the impact of e-marketing on business performance in relation with orientation, customer pressure, competition intensity and perceived advantage. For the present study small and medium entrepreneurs from PCMC areas. The study model is prepared to analyse the impact of e-marketing on business performance. With the consideration of competitive advantages and focusing on objectives of the present study, the study applied both qualitative and quantitative research.

Keywords:
Business, Performance, Orientation, Strategies, Consumer Behaviour and Internet.

Introduction:

With the ear of advanced technology, the internet is an integral part of everyone's life which brings online shopping facilities. ICT brings huge changes every day in human life and the way to respond the needs and this influences the system of managing business. Nowadays, majority of the organizations use and trust Internet marketing and they adopt the concept of E-marketing fully or partially. The researchers expected that the application of e-marketing will increase day by day because of changing nature of competition and customer perception. It is important that due to globalization the socio-cultural, economical, political as well as technological variables become open for everyone. India is a potential market for the entire world. In India, the growing rate of e-marketing is 25% per year, and the Indian digital market reached 450 crores in 2022 whereas growing of the market till 2028 is expected at a CAGR of 32%. The major factors to initiate the growth are the increase in mobile users, social media platforms, various online portals high, solo interest in the activity, the speed of digitalization, and all about convenience. Due to an increase in time pressure, the idea of convenience purchasing means of shopping anything-anywhere-anytime has grown and increased the interest in the e-commerce industry in India.

This expression indicates that every organization must be online marketing as the growth of internet users and social media platforms where communication and marketable transactions are available. With the changing nature of the market, it is essential to use e-marketing intelligence with the right tools at the right time nowadays. E-marketing is easier to send a marketing message and target a segment or customer through the internet than traditional. It is one to one approach marketing and targeting. The technological revolution is interconnected to all and makes it human-centered. Since the use of the internet is recognized, there is an increase in the adoption of e-marketing strategies to grow sales without expanding the areas of business.

Still, there are many business practices done in the traditional way. There is a need to scrutinize the factors which studied how e-marketing affects business entities and performance. Earlier

researches are inadequate to explain the association between e-marketing strategies and their impact on business performance. The purpose of this article is to find the answer to the following queries - to identify the factors that influence e-marketing, the advantages of e-marketing and business performance, and how e-marketing orientation affects business as well as the effect of customer perception and competition and business performance.

Figure No.1: Digital Market In India

Review of Literature:

E-marketing is a new strategic tool that growing rapidly with advanced ICT. The concept of E-marketing is explained by everyone based on their perception and contextual and several authors present numerous definitions of e-marketing according to their viewpoints, experience, and judgment.

Brodie (2007) explained e-marketing is an activity performed by the organization by using a web portal. It also uses other communication tools and technologies to communicate with its target customers. Whereas Strauss and Frost (2001) explained that it is the adoption and use of digital data and e-applications to create and execute the strategies and concepts in order to generate relations and advantages for achieving both (individual & company) goals.

Taleghani (2013) describe that every firm focuses more on sales policies from its inception but the nature of the pattern is changing with growing competition, knowledge of customers, and personalized demands. Due to these reasons, e-marketing is more important and essential for every organization to satisfy the customer.

Erum (2017) explains that the implementation of marketing functions through the electronic media are more effective than the traditional and have a positive impact on performance. It minimises the expenses and improve the strategic performance. Most widely techniques used for e-marketing are email, mobile, internet and intranet marketing. The e-marketing provides the growth and expansion of market with high rate of strategic performance.

Majid (2018) discussed that marketing initiatives are more effective through the marketing orientation which is helps in cope from challenges of the competitive environment and identify the opportunities. E-marketing orientation is effective technique to sale the products and services in today's competitive environment.

Sheikh et al. (2017) implemented e-market orientation with the customer orientation factor which includes the information collection of customers in target market.

Turkey, Kirca (2011) emphasis that firms e-market orientation is important in term of its financial performance and similarly a study made by Hamsioglu (2011) with 76 organisations found that, e-marketing orientation had positive impact.

Akenroye et al. (2020) examined prior studies and determine the efficiency of organisations market sensing ability based on the circumstance of the market and the competitive environment. This emphasizes that the frequency of the competition decides the challenges of companies and based on the companies determined the utilization of resources according to the orientation of the market.

Salim (2020), based on earlier studies of the impact of competitive intensity has varied. The author's analysis determines that the impact of competitive intensity only appearances on the relationship between market orientation and performance.

Peterson and Rajan (2000) found that strategic performance can be achieved through the growth of market share and extended business opportunities via e-marketing. It is also noted that the improvement in sales through e-marketing services with the available facilities like purchase, payment, and awareness is easier than the traditional or physical networks.

Siamagka, Christodoulides, Michaelidou, and Vlavi, (2015) research identifies that organization creativeness and development and according that the benefits are the main cause of e-marketing adoption and usage.

Shaltoni, West, Alnawas, and Shatnawi (2018) studies indicate that competitor pressure affects the market environment and due to high competition, organizations need to go with advanced technologies to get market advantages. The study identifies that e-marketing can grow not only because of benefits but also the involvement of high competition.

Conceptual Framework of Study:

For the present study, conceptual model is developed based on the review of literature which is shown in figure 1. This model assesses (1) factors affecting to online shopping (2) the impact of e-marketing on business. In the present model the independent variables are Orientation, Customer Pressure, Competition Intensity and Advantages (Opportunity) whereas the dependent factor is Business Performance.

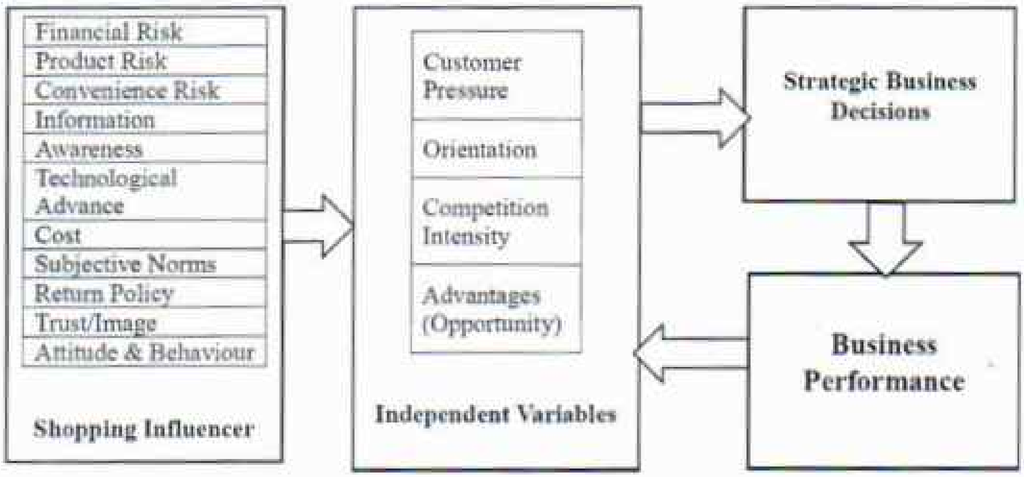


Figure No.2: Proposed Model of Study

Methodology:

Focusing on objectives of the present study, the study applied both qualitative and quantitative research. Through examining of literature of review the exploratory study was made and develop the rationale and important variables and attributes. A field survey was carried out by the structured questionnaire. The data was collected from primary as well as secondary sources. Considering the limitations, the data was collected from the Pimpri-Chinchwad Municipal Corporation (PCMC) area of Maharashtra. For this research, the sample size is 50 respondents and collected through simple random sampling for small and medium enterprisers in PCMC area. Who having the experience using e-marketing to improve their business are the respondents for this research.

Data Analysis & Result Discussion:

50 questionnaires were circulated and the researcher got 96 percent response rate. Two questionnaires were incomplete so drop from the sample. So, the final sample size was 48 respondents.

The collected data was analysed with the statistical tools weightage method, correlation and regression analysis to identify the relationship between independent and dependent variables. The analysis was made by using SPSS software.

Table No. 1: Factors Influencing to Online Shopping

Variables	Factors	Mean	Rank
Customer Pressure	Financial Risk	3.89	II
	Product Risk	3.57	VII
	Convenience Risk	2.98	XI
Orientation	Information	3.14	X
	Awareness	3.28	VIII
Competition Intensity	Technological Advance	3.22	IX
	Cost	3.94	I
	Subjective Norms	3.59	VI
Advantages (Opportunity)	Return Policy	3.76	IV
	Trust/Image	3.80	III
	Attitude & Behaviour	3.70	V

To evaluated the prime variable which influences the online shopping the weighted average method is used and ranking shown in Table No.1. It is reveals that the most important factor which influences to the online shopping is cost and financial risk with the highest mean value 3.94 and 3.89. After that trust and return policy of having greater impact on online shopping with third and fourth rank. Following by attitude, subjective norms, product risk and awareness were influencing online shopping.

Correlation & Regression Analysis:

Table No. 2: Reliability of Statistics

Cronbach's Alpha	N of Items
.743	30

Correlation and regression analysis is carried out by using SPSS. Through this analysis reliability of data, development of relationship between independent and dependent variables, validity of model and testing of hypothesis has been carried out. The reliability measures, in term of Cronbach's alpha, touched level is 0.74 as indicator of adequate consistency.

Table No. 3: Correlation

	Orientation	Pressure	Competition	Advantages	Performance
Orientation	1				
Pressure	.504**	1			
Competition	.751**	.526**	1		
Advantages	.695**	.589**	.518**	1	
Performance	.490**	.565**	.675**	.686**	1

** Correlation is significant at the 0.01 level (2-tailed)

Table No.3 shows the relationship between independent and dependent variables. It is seen that performance and orientation having 49% which indicate moderate corelation. Further, correlation between performance and pressure having 0.565 which is 56.4% that reflect moderate relationship. Next is the correlation between performance and competition is 67.5% that shows moderate correlation whereas the correlation between performance and advantages is 68.6 % which is also moderate.

Table No. 4: Model Summary [b]

	R				Change Statistics	

Mode l		R Squar e	Adjust R Squar e	Std. Error of the Estimat e	R Square Chang e	F Chang e	Df 1	Df 2	Sig. F Chang e	Durbin - Watson
1	7.563 a	.232	.603	8.00955	.482	7.955	4	25	.003	1.727

a. Dependent Variable: Performance
b. Independent Variable: Orientation, Pressure. Competition, Advantages

From Table No. 4 it is observed that regression analysis value is 60.3 percent performance is depending on independent variables orientation, pressure, competition and advantages.

Table No.5: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	Orientation	0.165	0.181	0.169	0.815	0.452
	Pressure	0.559	0.176	0.188	2.447	0.003
	Competition	0.546	0.155	0.630	3.465	0.014
	Advantages	0.315	0.148	0.353	1.458	0.131

a. Dependent Variable: Performance

Results of Hypothesis Testing:

From Table No. 5 it is found the customer pressure have significant positive relationship with business performance with beta of 0.559 and the significance level of 0.003. Also, the competition intensity is having significant positive relationship between business performance with beta value 0.546 and significance level of 0.014. The other variables which are orientation, advantages were found not have significance level of effect on business performance as the value are above of significance level of 0.05

Conclusion and Recommendations:

With prime focus on to analyse the impact on business performance in term of e-market orientation, customer pressure, competition intensity and proposed advantages. Also, the study emphasizes on the factors influences to the online shopping.

This result analysis demonstrations that customer pressure and competition level are the main attributes which majorly affected to the business performance. The cost and financial risk are the major influencing to the online shopping which again affected the strategic business decisions. E-marketing orientation in enterprises are not adequate to improve the business performance to survive they required their own marketing plans. The technological innovations are still new to small enterprises. Still, they adopt the traditional way of marketing but in some what they utilise e-commerce in their business. So, we can say the small enterprises now move towards the e-orientation of business.

It is observed that small and medium enterprises prefer the direct communication to inform the proposed advantages rather than advanced technologies. It is also seen that some of enterprises are using SMS and e-mail marketing strategies to commutation to their existing customer.

There is the effect of customer pressure on business performance and indicates that small medium enterprises more affected. It means that customer pressures are more influences to the strategic decisions in the improvement of business. At same time the competition intensity is also important attributes which affected to business and there is strong positive relationship between competition intensity and business performance. High competition intensity pushes the entrepreneur to keep update with modern technologies and get the benefits of competitive advantage. Finally, we can say that small and medium enterprises started trusting on e-marketing and now they move towards the e-marketing orientation. In next few years majority of the enterprises become e-enterprises.

The present study was carried out with some limitations that short time of period, restricted with area. While collecting the data, the only simple random is used and hard to get right information due to the suspicious behaviour of respondents. For the future research the researcher recommended – research should be based on expanded areas and there are limited studies of business performance in relation with e-marketing which are mostly conducted in overseas. So, the future researcher keep focus and will help to develop the understanding of e-marketing involvement in small and medium enterprises.

Reference:

A. Ahmed Sheikh, A. Shahzad and A. Ku Ishak, (2016), "The mediating impact of e-marketing adoption on export performance of firms: A conceptual study.," Journal of Technology and Operations Management, pp. 45-58.

A. Ciunova, O. Chris and N. Palamidovska Sterjadovska, (2016), "Complementary impact of capabilities and brand orientation on SMBs performance," Journal of Business Economics and Management, vol. 17, no. 6, pp. 1270-1285.

1. Akenroye, T.O.; Owens, J.D.; Elbaz, J. and Durowoju, O.A., (2020). Dynamic capabilities for SME participation in public procurement. Business Process Management Journal.
2. Anis Hanani Abdul Jamil, Muhammad Shahar, Dayang Hasliza Muhd Yusuf and Mohd Rosli Abdul Ghani (2020), "The Impact of E-Marketing on Business Performance in Northern Malaysia", International Journal of Business and Management 4 (5): 55-61.

B. Gelderman, J. Semeijn and P. Mertschuweit (2016), "The impact of social capital and technological uncertainty of strategic performance: The supplier perspective.," Journal of Purchasing and Aupply Management, pp. 225-234.

C. Oztamura and I. Karakadilar (2014), "Exploring the role of social media for SMEs: As a new marketing strategy tool for the firm performance perspective," Procedia - Social and Behavioural Sciences, vol. 150, no. 2014, pp. 511-520.

3. Erum, H.; Rafique, H. and Ali, A., (2017). Effect of E-Marketing Adoption Strategy on Export Performance of SMEs. International Journal of Management Excellence, 7(2), 1103-1112.
4. H. Mutlu and A. Surer, "Effects of market, e-marketing, and technology orientations on innovativeness and performance in Turkish health organizations," Health marketing quarterly, pp. 95- 111, 2016.
5. L. Hussein and A. Baharudin (2017), "Factors affecting small and medium enterprises (SMEs) continuance intention to adopt e-commerce in Jordan," International Journal of Advance and Applied Sciences, pp. 110.
6. M. Peterson and R. Rajan, "Does distance still matter? The information revolution in small business lending," NBER, 2000.
7. M. Y. Abuhashesh (2014), "Integration of social media in businesses," International Journal of Business Environment, vol. 5, no. 8, pp. 202-209.
8. N. Abd Aziz and N. Abd Wahid (2018), "Why consumers are hesitant to shop online: The major concerns towards online shopping.," International Journal of Academic Research in Business and Social Sciences, p. 8 (9).
9. N. Moctezuma and Rajagopal (2016), "Role of digital marketing in driving business performance in emerging markets: An analytical framework," International Journal of Business Forecasting and Marketing Intelligence, pp. 291-314.
10. N. Siamagka, G. Christodoulides, N. Michaelidou and A. Vlavi, "Determinants of social media adoption by B2B organisations," Industrial Marketing Management, vol. 51, pp. 89-99, 2015.

N. Niveen M. El Saghier (2021), "The Effect of E-marketing Orientation on Ebusiness Strategy: E-Trust as a Mediator", Journal of Alexandria University for Administrative Sciences. Vol. 58, No. 2.

12. Salim, M.; Saputra, F.; Hayu, R. and Febliansa, M. (2020). Marketing performance of bread and cake small and medium business with competitive advantage as moderating variable. Management Science Letters, 11(4), 1421-1428.
13. Shaltoni, D. West, I. Alnawas and T. Shatnawi (2018), "Electronic marketing orientation in the small and medium-sized enterprise context," European Business Review, pp. 272-284.
14. Sheikh, A.A.; Shahzad, A. and Ishaq, A.K. (2017). The growth of e-marketing in business-to-business industry and its effect on the performance of businesses in Pakistan: Marketing success. International and Multidisciplinary Journal of Social Sciences, 6(2), 178-214.
15. Taleghani, M.; Akhlagh, E.M. and Sani, A.M. (2013). Impact of Electronic Marketing on the Performance of Pistachio-Exporting Companies in Iran. Journal of Basic and Applied Scientific Research, 3(6), 211-217
16. Z. Yousaf, N. Sahar, A. Majid and A. Rafiq (2018), "The effects of e-marketing orientation on strategic business performance," World Journal of Entrepreneurship, Management and Sustainable Development, 2018.

IOT DEVELOPMENT IN THE AGRICULTURE SECTOR

Dr. Sudhir A. Atwadkar, Principal,
SNBP College of Arts Commerce Science& Management Studies, Pune.
sudhir.atwadkar@gmail.com

Ms. Umeshwari Patil, Assistant Professor,
ATSS College of Business Studies & Computer Application, Pune.
umeshwari_patil@rediffmail.com

ABSTRACT
Agriculture and related industries contributed 15.4 percent of the country's GDP. The technological revolution is fetching a massive change in every sector. The agricultural sector is not exceptional. The farming sector is ultimately becoming more important in the modern era with the initiation of the technology of the Internet of Things. The present study is to explore IoT Technology in agriculture and its environment. What enabling technologies and components are used in the agriculture sector? How does it work and access, store, and share data through sensors? Furthermore, it provides insight into IoT technology and developments in IoT and its understanding of the phenomenon. This study also aims to provide the ordinary reader, who has no idea about IoT, its systems, its environment, and smart farming, an easy-to-grasp overview.
Keywords: Agriculture, Technology, IoT, Development.

Introduction

In terms of agricultural production, India is second only to the United States. According to estimates, agriculture and related industries like animal husbandry, forestry, and fisheries employed more than half of India's workforce. Agriculture and related industries contributed 15.4 percent of the country's GDP. In the GDP of India, the agricultural contribution is slowly dropping as the nation's broad-based economic expansion continues. With the highest net cropped area India was ranked first in the world. The overall export of agricultural products. During 2016-17, India was the seventh-largest country in agricultural exporter and in net exporter it was sixth. More than 120 nations import Indian agricultural and horticulture products and processed meals. According to Dr. Bright Singh, "Increase in agricultural production and the rise in the per capita income of the rural community, together with the industrialization and urbanization, lead to increased demand in industrial production." It indicates that the agricultural industry promotes economic development by securing an enhancement to the industrial sector.

Due to the change in climate, the farmers' revenue will be reduced by 25 percent which is impacting the nation in many ways. The uncertainty in rainfall, temperature and the increase in the number of dry days are all attributed to climate change. Out of India's net sown area of 141.4 million hectares, more than 50% area (73 million) is still unirrigated which depends on rainfall. In recent economic studies, it has been shown that there is a necessity of the utilization of advanced technology to ensure sustainability of agriculture for all. The common practices in agriculture productivity lead to water shortages, and wastage of fertilizer and it increases the time and cost. According to the Economic Survey, irrigation has to be "dramatically" improved by using modern technology. New technology is needed to increase agricultural output and minimize time and cost in the current situation.

Figure 1: Components of Smart Farming

The technological revolution is fetching a massive change in all sectors. The agricultural sector is not exceptional. The agriculture sector is ultimately becoming more important with the beginning of the new technology of the Internet of Things. It is restructuring how farmers can trudge, harvest, and maintain crops. With the smart IoT concept, the idea of transforming agriculture is booming with new technology. The farmers can track the growth of crops and keep a record for future perspectives. This maintains the quality and guides the necessities for healthy plant growth. Through modern technology, it is possible to more precise farm or agriculture management. To ensure the crop and soil optimum health and productivity smart or precision agriculture (PA) is the way to manage agriculture activities by using advanced technology, especially information devices. The objective of smart farming is to confirm the sustainability with the profitability and protection of the environment and it is a management approach to the farm IoT that helps precision farming and smart agriculture to forecast the incoming weather conditions and evaluate the farm requirements to avoid difficulties during farming activities. The changes in attributes of yield or soil are observed, recorded and distinguished by using remote sensing (RS), global position system (GPS), and geographical information system (GIS) technologies. Further, the actions are taken as a significance of the continued evaluation of the spatial variability within that field. In modern days it is called a site-specific management system by adopting advanced technology. It provides a possible step change in productivity and efficiency. In the context of Indian precision, the farming scenario is based on traditional farming knowledge due to that the cost of input is high and with the decreasing commodity prices, Indian farmers are looking for new ways to increase efficiency and reduce cost.

IoT is transforming the farming sector in multiple ways. Every area that covers a farm is increasing its potential with the usage of IoT technologies. Through the IoT, field management and monitoring, crop supervision, and livestock management become smarter and better. The Internet of Things provides a data-driven approach for the future management of agricultural activities with reduced wastage and maximized efficiency of equipment and overall growth. Implementing smart IoT technologies in farming helps in providing real-time data which improves decision-making through better analytics and increases quality productivity. Implementation of IoT technologies can increase the potential of fields and take the farming business to greater heights.

The present paper highlighted the development of IoT and Agri activities with the prime objective being the current development condition of the internet of things in the agriculture sector based on the available technology analyses. Also, this study gives an insight into IoT in agriculture to the common person. The present paper is majorly based on secondary data.

Review of Literature

Sinha and Dhanalakshmi (2022) primely discussed the future trends in the agriculture sector with the security issues, major components, new technologies, and challenges. This study helps to find problems in IoT adoption and application necessities to implement appropriate technologies. For the transformation of information, IoT is an evolving paradigm that seeks the connection of multi-type of technologies. In the present article, the author introduces an IoT based framework which automatically manages and tracks agricultural lands with minimal human intervention.

Morais, Mendes, Silva, Nuno, Joaquim, Sousa and Peres (2021) focus their study to gather the framing information on low-power and cost IoT technologies. It indicates that the IoT software and hardware resolutions are both enough to fit the task of data gaining with different availability of sensors. In the present article, the authors focus on precision agriculture practices that depend on hardware solutions.

Pachayappana, Ganeshkumar & Narayanasam (2020) have emphasized technological application and their effect on the agricultural business. They proposed an IoT framework for agriculture which is based on monitoring and controlling the growth of crops. The proposed framework simplifies the decision to visualize the production position at any moment and makes them take the decision for any change in practices. IoT technologies are modified with communication devices that allow connecting with people and physical things that enable quick decisions.

Khursid, Muzafar & Rana (2020) have reviewed the system consisting of a sensor network for humidity, temperature, soil moisture, colour, and water level sensors. The controller unit is used to control the irrigation motor thereby controlling the water flow to the field. In addition to that, a water level sensor is placed in the field. Modern programming Raspberry pi is used in the controller mode. Internet of the things (IOT) is an ecosystem of connected physical objects that are accessible through the internet.

Agarwal (2020) discussed the challenges and opportunities in the adoption of IoT technologies in agriculture. He focuses on the spectral properties and vegetation is strongly determined by biophysical and biochemical

attributes such as leaf area Index. Remote sensing is the measurement of reflected radiations rather than transmitted or absorbed radiations. GIS, GPS, and computing science are more important in smart agriculture to value integration.

Raikar, Desai, Vijayalakshmi & Narayankar (2020) has emphasized that the emergence of the IoT has a transformative direct effect on our society and forces us to rethink how to educate the next generation. As a result, IoT is the network of all kinds of things embedded with sensors, electronics, software, and people connected to the Internet.

Gomez, Aviles, Moran, Grijalva & Tanya Recall (2019) have highlighted IoT technologies and their applications in agriculture in this article. Also highlighted on various technologies available in the market for agriculture activities. It provides the benefits of various Agri-IoT technologies and how different agricultural processes can be supported by these technologies.

Muangprathuba, Boonnama, Kajornkasirata, Lekbangponga, Wanichsombata & Nillaorb (2019) has emphasized data mining and analysis for smart farms and evaluated the agriculture data. Secondly, they focus on web-based applications that were designed and implemented to manipulate the details of crop data and field information. For the future management of farms, these components use data mining and analyse the data for predicting suitable temperature, humidity, and soil moisture for crops growth. Finally, they focus on controlling devices for crop growth through a mobile application in a smartphone which permits the user for automatic or manual control. The automatic control uses data from soil moisture sensors. However, the user can opt for manual control of growth of crops in the functional control mode.

Jaiganesh & Gunaseelan (2017) studied the agro cloud technologies and emphasized upgrading agricultural generation and accessibility of information. Today agriculture is inserted with propel benefits like GPS, sensors that empower to impart information to each other, break down the information and furthermore trade information among them.

Gondchawar and Kawitkar (2016) highlight features of smart GPS-based remote-controlled robots to perform various agri tasks. Secondly, it includes smart irrigation with smart control and intelligent decision-making based on accurate real-time field data. Thirdly, smart warehouse management which includes temperature maintenance, humidity maintenance and theft detection in the warehouse. Controlling of all these operations will be through any remote smart device or computer connected to the Internet.

Technologies used in Agriculture

For smart farming, it is essential to anyone familiar with modern technologies and available tools. The range of advanced tools including software and hardware promotes smart agriculture management. These technologies and their benefits are discussed as follows –

Mapping

Mapping is testing various properties of the yield which is the most essential for smart agriculture management. It is the first step that provides the basis for controlling spatial variability. Before and during crop growing both the information and data are provided and by using GPS the precise location manages to enhance productivity. The technologies of data collection are connected with yield monitoring, soil and crop inspections, and RS. During the crop creation, the data gathering through the sensing devices and RS, GIS, and manual mapping can be completed.

Global Positioning System (GPS) receivers

The global positioning system (GPS) allows receiving singles through the satellite broadcast singles to identify the location and added. The information of continuous position is provided in actuality in a moment and permits plotting the yield position and measurements. The GPS singles provided access to the operator for the sample area by returning the specific locations.

Yield monitoring and mapping

There are various mechanisms for monitoring and plotting the yield in the market. The grain yield monitoring system nonstop measures and records the flow of grain and cleans it. GPS is linked with yield monitoring and the necessary data will be mapped. Soil, environmental and other factors will be considered in yield mapping to make a sound management decision. Crop information provided the necessary and important feedback in defining and use of inputs of fertilizer, seed, irrigation, and pesticides.

Grid Soil Sampling
Soil testing data facilitated the crop advisory and recommended the fertilizer application. To increase the intensity of sampling grid soil sampling is used. Grid soil sampling aims to prepare the network of requirements.

VRT Application
The fertilizer applications test the set of soil samples. For the application of the plot, the variable rate fertilizer (VRT) spreader is attached to a computer attached and according to the application map and GPS receiver instructed to the fertilizer delivery controller to change the quantity of fertilizer product.

Remote Sensing
Remote sensing technology provided the data from distance. To evaluate crop health, stress, moisture, nutrients, compaction, diseases, and other plant concern issues remotely sensors provide tools. Electronic cameras record infrared images and match them with healthy crops or plant concerns. To determine the location and crop stress remote sensing devices help analyze the images and determine causes. Such information helps to implement a spot treatment and optimize the use of pesticides and fertilizers.

Geographic Information Systems (GIS)
GIS is a combination of various physical devices (hardware) and software which provides site data to produce maps and use feature attributes. GIS agriculture is an important function to store layers of information. With the accumulation of a visual perspective for interpretation geological data can be exhibited in the GIS. To evaluate the present and alternative solutions GIS can be used by merging data layers to provide the analysis report to management.

Quantifying Farm Variability
Quantifying on-farm variability is an incremental approach and smart strategy by adopting more than one device at the same time and analysing the results. Soil, organic variation, and water holding capacity along with structure provide a clearer view of the farm. This will provide more insight to the user to give the inputs to the soil. The major concern is to quantify soil variation. The gathering of data and analysis only offers one base layer of information. There are various devices for sampling. These systems determine the variability across a farm. Geography differences within the farm can map but determination on these is insufficient to give detailed information about fields.

Variability of Soil Water
In general, the variability of soil water is a present level or content of water in the soil or a field that differs over time and place. For smart framing, the variability in soil water patterns is important and has reflective implications. Smart management of water needs proper information on the primary distribution of soil water and it saves water, energy, labor, and equipment cost and leads to improved production efficiency.

Time and Space Scales
Time and space parameters are more important and understanding these parameters is necessary for precision agriculture. The space scale is the fundamental thing of smart farm management due to the input and traditional practices that differ with soil type and crop growing. The time scale is a critical component due to various processes and actions that ensure crop benefits. The major challenge for smart agriculture is a better-quality understanding and determining use of time and space scales. Proper management of space and time context and monitoring to document the changes are more important to accomplish precision agriculture.

Conclusion
The purpose of the study is to identify and assess IoT systems in agriculture. Many kinds of literature and studies show that various technologies and applications are utilized for smart agriculture management. IoT makes smart agriculture through various technologies and applications. The Internet of Things has been introduced in many areas including agriculture. The main focus is on the management of farms and reducing costs. The major issues are the security of data, awareness among the farmers, suitability for small farms, and effectiveness of cost. There is a need for more focus on Scalability, Interoperability, Government Support, Security and Privacy, Safety of Patients, and Designing Challenges. Integrated efforts of government, IoT manufacturers, and agricultural associates help to promote IoT development and its usages in agriculture.

References
Ariful I., Kohinur A., NoorJahan N., Das A., Rahman M. & Rahman (2018). "IoT Based Power Efficient Agro Field Monitoring and Irrigation Control System": An Empirical Implementation in Precision Agriculture. Innovations in Science, Engineering, and Technology

Anusha A. Shettar, Shanmukhappa A. & Angadi (2016), "Efficient data mining algorithms for agriculture data," International Journal of Recent Trends in Engineering & Research (IJRET), vol. 02, no. 9, pp. 142-149.

Ayaz M., Ammaduddin M., Sharif Z., Mansour A. & Aggoune H. (2019), "Internet-of-Things (IoT) based Smart Agriculture": Towards Making the Fields Talk

Balakrishna G. & Rao M. (2019), "Study report on using IoT agriculture farm monitoring," Innovations in Computer Science and Engineering, Lecture Notes in Networks and Systems, vol. 74, pp 483-491.

C, Guimaraes, & Ghosh, K., (2012)."Re-orienting crop improvement for the changing climatic conditions of the 21st century". Agriculture and Food Security Vol 1:7, doi:10.1186/2048-7010-1-7.

Dhall R., Agrawal H. (2018). "An Improved Energy Efficient Duty Cycling Algorithm for IoT-based Precision Agriculture". Elsevier Ltd

Gandh N., Armstrong L., Petkar O. & Tripathy A.(2016), "Rice crop yield prediction in India using support vector machines," International Joint Conference on Computer Science and Software engineering (JCSSE), pp. 1-5.

Gómez-Chabla R., Real-Avilés K., Morán C., Grijalva P. & Recald T. (2019). "IoT Applications in Agriculture: A Systematic Literature Review". Springer Nature Switzerland

Gondchawar N., Kawitkar R. (2016). "IoT-based Smart Agriculture". IJARCCE

Jaiganesh S. & Gunaseelan. K. (2017). "IoT Agriculture to improve Food and Farming Technology". IEEE

Jiangchuan F. , Zhang Y., Wen W. , Shenghao G. , Xianju L. & Xinyu G. (2021). "The future of the Internet of Things in agriculture: Plant high-throughput phenotypic platform", Journal of Cleaner Production

Khurshid B., Muzafar H. & Rana S. (2020). "Review and Implementation IoT in Agriculture at High Altitude Areas", IRJET

McQueen R., Garner S., Craig G., Manning N., Witten I. (1995), "Applying machine learning to agriculture data", Computers and electronics in Agriculture, Volume 12, Issue 4, June 1995, pp. 275-293.

Morais R., Mendes J., Silva R., Silva N., Sousa J. & Peres E. (2021). "A Versatile, Low-Power, and Low-Cost IoT Device for Field Data Gathering in Precision Agriculture Practices".

Pachayappana M., Ganeshkumar & Sugundan N. (2020). "Technological implication and its impact in agricultural sector: An IoT Based Collaboration framework". Elsevier B.V

Rajeswari S., Suthendran K. & Rajakumar K., (2017) "A smart agricultural model by integrating IoT, mobile and cloud-based big data analytics", International Conference on Intelligent Computing and Control (I2C2).

Ravisankar K., Sidhardha K. & Prabadevi B (2017), "Analysis of agriculture data using big data analytics", Journal of Chemical and Pharmaceutical Sciences, vol. 10, no. 3, pp. 1132-1135.

Sagar S., Kumar G., Xavier L., Sivakumar S. & Durai R., (2017) "Smart irrigation system with flood avoidance technique", in Third International Conference on Science Technology Engineering & Management (ICONSTEM).

Saha A., Saha J., Ray R., Sircar S., Dutta S, Chattopadhyay S.& Saha H. (2018). "IoT-Based Drone for Improvement of Crop Quality in Agricultural Field". IEEE

Saraf S. & Gawali D.(2017) "IoT based smart irrigation monitoring and controlling system", in 2nd IEEE International Conference on Recent Trends in Electronics, Information & Communication Technology (RTEICT).

Yoon, M. Huh, Kang S., Park J. & Lee C.(2018) "Implement smart farms with IoT technology", in 20th International Conference on Advanced Communication Technology (ICACT).

ISSN : 0974-0066

84

Vol-84 No. 29,
January – June: 2023

मध्य भारती

मानविकी एवं समाजविज्ञान की द्विभाषी शोध-पत्रिका

CONTENT

BUSINESS ANALYTICS IS BACKBONE OF BUSINESS: A COMPREHENSIVE STUDY

Dr. Sudhir A. Atwadkar Professor, SNBP College of Arts Commerce Science & Management Studies, Pune

Ms. Umeshwari Patil Assistant Professor, ATSS College of Commerce, Science & Computer Application, Pune

Abstract:

Business analytics, a buzzword of the recent era, has been applicable by many organizations to help develop more value and improve business performance. There are many aspects still misty and along with a definition. Yet there is a difference of opinion on the relationship with business intelligence. Business analytics is the process through which an organization can predict the future course of action and strategic planning. With the integration of modern technologies and statistical tools and techniques, business analytics becomes more effective. Today business become more complicated and it required proper decision-making. It should come as no surprise that business analytics is one of the fastest-growing markets in the enterprise software landscape. The purpose of the study is to present is analyze the different approaches and applications. Also emphasizes business analytical literature. This article will be concentrating on the terminology of analytics and analysis. This paper highlights the scope and future of business analytics as well as the opportunities for business analytics as a career. the discussion made on the application area of business analytics and challenges has been summarized.

Key Words:

Business, Analytics, Intelligence, Decisions

Introduction:

From the ancient, the process of decision-making is a subjective matter of study. In the area of business administration, decision-making is a crucial part. Various authors have a write-up significance on better decision-making. Today's businesses are more competitive and required quick decision-making or solutions. Technological advances provided various tools to gather and analyse data and provide various alternatives or solutions for business problems. Due to the high competition and changing nature of the business, strategic planning is essential. In recent, redesigning the data according to our perception towards the global with the fastest. There are many technologies – artificial intelligence. Machine learning and IoT are more popular in big data, and business analytics is one of them. Despite these popular technologies, nowadays business analytics getting more importance. Besides the number of articles on business analytics, there is a deficiency in research that there is a need that various facts on business analytics elaborated in a systematic way that updates the present information about business analytics. The purpose of the present study is to analyze different approaches and applications of business analytics that support the business as a backbone. The present paper is based on secondary data.

Business analytics is associated with fields of business, management, and computer. The essential business aspects need to be understood and flexibility in restrictions in policy is required. Business analysts allow the integration of fields of management and technology. Information and communication technology and the execution of its alternatives are also part of business analytics. Change in the organization through business analytics uses the techniques of big data, statistical analysis, and previous data. Applications of business analytics applicable to wide and different businesses. By using big data some enterprises develop new policies to cope with customer experiences and increase revenue. Business analytics allows future strategies that give competitive advantages. Business analytics develops future trends through collecting and analysing data on customer behavior and experiences which helps to understand the success of marketing strategies with the various viewers and permits new movements in businesses.

Historical Development of Business Analytics:

Today business analytics become getting more and more significance because every enterprise focuses on acquiring data in bulk quantity from various sources. As the business analytics become more important function, it provides the alternatives to each problem of business. Business analytics is applicable to micro to macro areas of each segment of the business. It helps develop the objectives to target the right customer and hire the right employee to minimize cost and increase revenue. There is a very low frequency where business analytics is unsuccessful.

While studying the literature it is observed that there is a lack of understanding of the concept of business analytics. It is important to understand the definition of business analytics. In today's generation business analytics play a crucial role in decision-making. From the 18th century, business analytics grew and take the shape in the 21st century. Business analytics and business analysis have relations and differences. between the two concepts The primary focus of business analytics is statistics and investigation of previous reports of performance and based on that predict forthcoming success or performance. Whereas the business analysis is focusing the requirements. Both are required the data but what to do with data and how to scrutinize are different.

Review of Literature:

In the era of digitalization and Big Data, Business analytics comes with an effective tool for enterprises to get a better knowledge of different types of data to discover the hidden facts and connections with other attributes. Such knowledge will be a competitive advantage in making business profits and innovations.

Sharda (2013) recommends that business intelligence is deeply dependent on descriptive investigation and demonstrated with technology as data representation.

Gorman and Klimberg (2014) assume that the extension of business intelligence is business analytics which integrates with modern tools and techniques of statistics and operations research.

Chase and Olson (2013) study business analytics and business intelligence are the same concept. Both replications are based on the competencies for decision support.

Whereas Wixom, Yen, and Relich (2013) said that business analytics is a process by which business intelligence is created as intelligence is hidden inside in it.

Kiron (2012) claimed that to get competitive advantages smart organizations use analytic techniques for innovations. If adopting analytics there is only empirical evidence that created the advantage for competition. There is a need to create standards to what extent business analytics support to creativeness and innovations with the wide availability of data.

Stock and Zacharias (2013) have made a detailed study of the literature on the various attributes of innovations. The study was focused on fifteen dimensions of new product innovation of different products. They identify that every product used widespread novelty and significance of the product.

Subramaniam and Yougdt (2005) emphasized on innovation performance is a multifaceted nature with the concept of a multi-factor thought and is difficult to assess on a single fact or innovation. It can be assessed contrary to the opponent or competitor's actions.

Davenport and Harris (2007) anticipated that organizations consider two different approaches to the business analytics - internal analytics (within the organization) and external analytics (outside the organization). Through this approach, the organization can make available proper data and store huge data in high quality to develop an analytical atmosphere. It helps to develop future strategies and initiatives.

Gondomi and Haidar (2014) focused on the variety of styles for using analytics and in addition anticipated approaches with potential output based on present and past records.

Varshney and Mojsilovic (2011) explain a similar thought that from the managerial point of view, business analytics is an extension of business intelligence means what is known

Area of Applications of Business Analytics:

It provides different applications according to business areas, these are as follows –

- **Finance:** Business analytics is a vital feature in finance. Business analytics used as investigation and statistical technique to present financial information to indicates the trends in present to decide the future. There is high demand of data analytics and scientists in the financial base industry like financial planning and investment, banking portfolio management. Forecasting is always fruitful by implementing data analytics which leads the organisation strategies.
- **Marketing:** Business analytics play a crucial in the development and implementation of effective marketing strategies. Market research is always essential to developing marketing strategies during the product lifecycle (PLC). Business analytics involves in all stages of PLC to identify purchasing patterns, buyer behavior, and changing trends of consumers. Business analytics is also applied in analysing promotional tools, customer loyalty, and future demands in products and services which helps to improve customer relationship management.
- **HR:** Business analytics supports HR executives to identify the right person for the right job by scrutiny huge amounts of data and facts. It provides a suitable and potential list of candidates. It also helps the influencing factors to HR performance like salary expectations and retention of employees.
- **Production:** The effectiveness of business analytics reflects in the performance of various segments of manufacturing like inventory and others. It creates coordination and supply chain and smooth production. Business analytics categorize the manufacturing patterns and identify the performance of the process.

Significance and Future of Business Analytics:

There is a widespread of varieties and tremendous scope for business analytics. Today organizations used the focused approach with their products which provides by the business analytics. The marketing strategies studied by the organisations and offering the product or services to target market. Positive perception is a crucial in growth of business analytics in India. There are most of the people and business in India are internet savvy. There is a major significance modern technologies - Artificial intelligence, Machine Learning and Big data in the development of business. The Internet of Things (IoT) growing massively with the customised applications. Information technology with advance application is central in the process of decision making in business. IoT develops various applications for collection of structured and unstructured data with analytical techniques will persist the significance.

Business analytics play a crucial part in find out hidden facts in the data. Many organisations understand the scope of business analytics and use it with extraordinary skills. Today there are many opportunities in business analytics as a career and demand the masters in business analytics because it prevents overhead expenses and costs. The growth of intellectual analysts pushes demand for data scientists or analysts which increases the scope of business analytics.

Challenges in Business Analytics:

Majority of the organizations use business analytics today partially or fully. Mostly analytics has seen mysterious research as the finest or worst. It indicates that there is a lack of understanding and confidence. Nowadays business analytics become a part of the business which emphasizes to provides ways to achieve objectives and grow revenue. There is a difference in business analytics and business intelligence we cannot compare in the same way both concepts.

Conclusion:

The purpose of the study is to identify the different approaches and applications of business analytics. Also, explore the various author's views on business analytics. It differentiates the term analytics and analysis. There are huge opportunities in making a career as an analyst or data scientist, to various experts. This is the overall process of strategic decision-making. It is applicable to everyone whether the business is small or big. This study concludes that innovations and business analytics are correlated.

Difference Between Business Analytics & Business Analysis:

	Business Analytics	Business Analysis
Conceptual	It is statistics and reporting based on old records and results and predicts future outputs.	It is based on functions and procedures and identifies the requirements according that alternatives.
Skills	Managing abilities in terms of organization communications. The ability of data storage, access, and presentation according to requirements. The skill of interpretation mathematical and statistical equations with results presented to authorities in business language.	Required command of various technical and business concepts and expertise in technology applications. The ability to convert and communicate the technical concept with departments and the ability to coordinate with others.
As career	There are opportunities in trading statistical information through market research and recent trends. Positions on senior management by presenting summarisation of statistical data, and representation of graphical figures and models.	Evaluate various records, documents, processes and models, and mechanisms. Gather and minimize business issues and problems and provides the required input in a common language.

Table No. 1: Difference Between Business Analytics & Business Analysis

Concept of Business Analytics:

The diversity of social and economic areas, enterprises utilise various reports and kept big quantity of files along with alternatives. In addition stored in various e-platforms and e-warehouses and turn into solutions is called as Business analytics.

The concept of business analytics become strong application because of the development of information and communication technology. The concept of business analytics emphases systematic understanding of organisational culture. The adoption of business analytics and proper execution there is need of proper knowledge of an organisations strength and weakness. Business analytics establish techniques, process (statistical, forecasting predictive analysis) and optimisation which support to business performance.

Types of Business Analytics:

The high quantity of data is processed in market analysis at a different level. There are four main types of analytics – descriptive, diagnostic, predictive and prescriptive. The proper integration of these types provides knowledge to increase the efficiency of functions. These four types are as follows –

- Descriptive Analytics: It is providing authenticity and maintaining reality past happing's. This type permits to huge data into smaller and valuable realities. Descriptive analytics supports decision makers to learn from the past occurrences and its impact on future.
- Diagnostic Analytics: It emphasis on the examine the past facts and investigate the alternatives in business. This is also known as root cause analysis due it investigates deeply and understand the causes.
- Predictive Analytics: it is based on the prediction or forecast. Based on statistical model and machine learning (ML) tools it predicts the feasibility of future aspects. Due to ML authority, there will be high level of accuracy.
- Prescriptive Analytics: this will be next step of the predictive analytics which permits the conformation to take the next best action. It shows the favourable outcomes according course of action and shows the required or specific course of action to achieve the to most desirable outcomes. It depends on two aspects that strong responding system and continuous analysis.

with each other and both extend the application area on various segments of the business. It identifies the trends and provides the right directions for future courses of action. The era of business analytics is technological revolutionary and if entrepreneurs want to make smart organizations role of the technological professional is crucial and organizations become technologically less. Business analytics perform a vital role in attending to challenges and forecasting future outcomes which become a backbone of all organizations.

Reference:

- Adheer Goyal, Vidhi Jirkuntwar, Vanshika Hasani, Tarun Burla(2021), Business Analytics Backbone of organizations – A Literature Review, Journal Of Archaeology Of Egypt/Egyptology 18(10), 793-802. ISSN 1567-214x
- Bhoomraogari Sai Teja (2020), A Comprehensive Study on Business Analytics, International Journal of Engineering Research & Technology (IJERT) Vol. 9 Issue 09, pp 592-596. http://www.ijert.org
- Chae, B.K., & Olson, D.L. (2013). Business Analytics for Supply Chain: a Dynamic-Capabilities Framework. International Journal of Information Technology & Decision Making, 12(01), 9-26. https://doi.org/10.1142/S0219622013500016
- Davenport T. H. and Harris J. G. (2007) Competing on Analytics: The new science of winning. Boston, MA, Harvard Business School Press.
- Gorman, M.F., & Klimberg, R.K. (2014). Benchmarking Academic Programs in Business Analytics. Interfaces, 44(3), 329-341. https://doi.org/10.1287/inte.2014.0739
- https://en.wikipedia.org/wiki/Business_analytics
- https://searchbusinessanalytics.techtarget.com/definition/business-analytics-BA
- https://www.mastersindatascience.org/learning/what-is-business-analytics/
- https://www.oracle.com/in/business-analytics/what-is-business-analytics/
- https://learn.g2.com/business-analytics
- https://www.fordham.edu/info/21535/business_analytics
- https://talentedge.com/articles/advantages-disadvantages-business-analytics/
- https://www.analyttica.com/scope-and-future-of-business-analytics-in-india
- https://www.mygreatlearning.com/blog/what-is-business-analytics/
- https://www.upgrad.com/blog/scope-of-business-analytics-in-india/
- https://www.omnisci.com/technical-glossary/businessanalytics#:~:text=Business%20Analytics%20is%20the%20process,and%20improv BUSINESS ANALYTICS, BACKBONE OF ORGANIZATIONS - A LITERATURE REVIEW PJAEE,
- https://www.proschoolonline.com/blog/business-analytics-meaning-benefits-andchallenges
- Kiron, D., Prentice, P. K., & Ferguson, R. B. (2012). Innovating with analytics. MIT Sloan Management Review, 54(1), 47-52.
- Sharda, R., Asamoah, D.A., & Ponna, N. (2013). Research and pedagogy in business analytics: Opportunities and illustrative examples. Journal of Computing and Information Technology, 21(3), 171-183. https://doi.org/10.2498/cit.1002194
- Stock, R. M., & Zacharias, N. A. (2013). Two sides of the same coin: How do different dimensions of product program innovativeness affect customer loyalty? Journal of Product Innovation Management, 30(3), 516-532.
- Subramaniam, M., & Youndt, M. A. (2005). The Influence of Intellectual Capital on the Types of Innovation Capabilities. Academy of Management Journal, 48(3), 450-463.
- Varshney, K.R., & Mojsilovic, A. (2011). Business Analytics based on financial time series: Methodologies for using data to gain insight into business performance and drive business planning. IEEE Signal Processing Magazine, (September), 82-93. https://doi.org/10.1109/MSP.2011.941554

- Wixom, B. H., Yen, B., & Relich, M. (2013). Maximizing Value from Business Analytics. MIS Quarterly Executive, 12(2), 111-123. https://doi.org/10.1108/02635570910926564
- Yin, J., & Fernandez, V. (2020). A systematic review on business analytics. Journal of Industrial Engineering and Management, 13(2), 283-295. https://doi.org/10.3926/jiem.3030

History Research Journal

ISSN 0976-5425
VOL-XXX November 2023

IMPACT OF WORK FROM HOME DURING COVID-19 CRISIS – A REVIEW

Akshata Sakhawalkar
Assistant Professor
Sinhgad Institute of Management, Pune

Sudhir A. Atwadkar
Professor,
SNBP College of Arts Commerce Science & Management Studies, Pune

Abstract

A significant section of the workforce is unable to commute to work due to the COVID-19 pandemic, which has spread around the world. As a result, alternative work arrangements are being sought after by both businesses and employees. The pandemic has altered workplace dynamics, and an increasing number of employees prefer to work remotely (WFH). In contrast to conventional work patterns, this strategy has drawbacks and has had a big impact on both businesses and people. Our lives have changed as a result of Covid-19, whether it is in terms of our personal lives, financial situations, or work duties. The pandemic has had a significant impact on work-from-home (WFH) norms because of social isolation constraints, and WFH has some negative impacts that are more detrimental than beneficial. It has raised expectations for productivity and increased work-related distractions, decreased inter-organizational communication, and eventually decreased productivity across all business sectors. The purpose of the current study is to explore and review the detrimental effects of the "Work from Home" culture during the COVID-19 epidemic.

Keywords: COVID-19, Pandemic, Work from Home (WFH), Organizations, Negative impact

IntroductionIntroduction

Every element of our lives and work has been impacted by the COVID-19 pandemic. Companies, organisations, and institutions urged their staff to work remotely from home in reaction to municipal and federal confinement rules in order to keep safe. Work from home (WFH) became popular in the early 2000s as telecommuting technologies advanced and allowed employees to avoid commuting, offer greater scheduling flexibility, and achieve better work-life balance. Many employees were instructed to work full time during the COVID-19 epidemic, which changed the traditional idea of WFH that was usual only for specific sorts of employment, on occasion, or given specific employee conditions.

Due to the fact that employers have already spent the fixed cost to set up remote work solutions for their employees, many businesses expect that WFH will become more prevalent after the pandemic.[i] Companies are already assessing whether lowering the amount of office space needed could significantly lower operational costs.

Working from home (WFH) refers when a worker uses their residence or place of residence as their primary place of business. Many businesses and sectors have chosen to allow their workers to work from home in order to offer flexibility and effective working at their convenience.

The workforces in offices are diversified, and flexible working arrangements are implemented in accordance with organisational needs. Working from home has advantages and disadvantages. While working from home may save the company money and the employee's money on travel expenses, it can also make it more difficult to collaborate and communicate. Working remotely may increase productivity and work-life balance for employees. Employees frequently utilise cell phones, tablets, desktop computers, laptops, and other devices to work remotely and stay in touch with the company and one another through online teleconferencing services.

Industries like the Information Technology (IT) sector are forced to work remotely as a result of the Coronavirus (COVID-19), pandemic brought on by the transmission of the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). One of the key strategies for reducing the pandemic's effects has been recognised as social isolation, combined with raising hygiene awareness. During the COVID-19 outbreak, India implemented measures like closing down schools and moving to online

ISSN 0976-5425
VOL-XXX November 2023

education, limiting access to public spaces, encouraging residents to practise social seclusion, quarantining their homes, and enforcing lockdowns.

Literature Review

The culture of working from home, the employees who participate in it and the businesses in various ways are all impacted by a number of issues. In order to comprehend how the work from home culture during the COVID-19 epidemic has impacted employees and employers in all sorts of enterprises, a number of criteria have been taken into account. Work-Life Balance, improving job skills, employee stress during a crisis, work-family imbalance, and corporate culture reinforcement; Psychological Effects such as loneliness and isolation; anxiety; stress; and depression; lifestyle changes; social life; increased fatigue; and overeating.

Kirchmeyer (2000) stated in his paper that increased tiredness, a blurring of the barriers between personal and work spaces, and overeating. Balance is defined as: "achieving gratifying experiences in all areas of one's life, and to do so, one must have resources such as energy, time, and dedication that are evenly dispersed among all areas of one's life." The impact of Work-Life, Policy initiatives on work and family in Noida IT businesses was studied by Sharma, N., and Nayak, P. (2016). By analysing 100,000 tweets, Dubey, A., and Tripathi, S. (2020) conducted a study to ascertain how people felt about the idea of working from home. The findings show that respondents accepted the idea of working from home. According to Clark (2000), maintaining consistency across the boundaries of the home and workplace can have a variety of effects. According to Chung, H., and van der Lippe, T.'s research on flexible employment, work-life balance, and gender equality from 2020, women who work from home are expected to perform more domestic chores than males. Kazekami (2020) investigated the factors affecting distant employees' productivity. Examined are the strains of juggling work and household responsibilities, life contentment, career satisfaction, and cutting down on rush-hour travel time.

Mental health is "a condition of well-being in which the individual realises his or her own strengths, can cope with the usual demands of life, can work creatively and fruitfully, and can contribute to his or her community," according to the World Health Organization (WHO). Mann et al. (2000) asserted that teleworking had a significant emotional impact on employees since reports of unpleasant feelings including loneliness, annoyance, worry, and regret were better organised than with office workers. Additionally, it has been discovered that teleworkers generally endure higher mental illness than office workers. The psychological impact of teleworking in comparison to office-based jobs was examined by (Mann et al. in 2003). In order to ascertain the impact that working from home has on employees' motivation and productivity inside a banking firm, Ward and Hannah (2017) conducted a study. According to a research done in April 2020 by LeanIn.org and Survey Monkey, women were disproportionately impacted by work-family stress during COVID-19 restrictions. The COVID-19 pandemic-related tension, job-related burnout, and distant work brought on by social distancing attempts were the focus of a study done by (Hayes, S. et al. in 2020). According to Golden (2006), there is a positive correlation between engagement and home-based work and a negative correlation between turnover intentions and engagement. According to research, the physical working environment affects both worker happiness and efficiency. (Vischer, 2007). Findings show there were no unfavourable effects on employees who remained at work. Home workers demonstrated much superior psychological and job satisfaction levels, and their rates of job attrition decreased by more than 50%. (Bright et al 2015).

According to a study by Restrepo, B.J., and Zeballos, E. (2020), persons are more likely to have meals at home when working from home than when working somewhere else. (88.9% as opposed to 76.9%) A study conducted by scientists at the University of Southern California found that working from home had a negative impact on employees' physical health, with workers more likely to have neck pain as their time spent at the desk increases. (Amabile & Kramer , 2013) found that working from home makes it easier to balance normal work and the office because it increases productivity and frees up time for personal activities. Beal et al. (2005) claim that the home environment can be a source of distractions including chores, noise, and increased access to social networking sites that make it difficult to concentrate on the task at hand and lead to decreased productivity and subpar performance.

Working from home employees reported reduced levels of work-family conflict across all dimensions,

ISSN 0976-5425
VOL-XXX November 2023

according to research by (Susan Madsen, 2003). Since team members are interdependent and supervisors struggle to arrange their activities, effective communication is crucial for working from home operations. (Greer et al. 2014) According to a 2020 article by (Gallacher, J., 2021) employees of the company "Glint" feel less bonded to managers, co-workers, and friends than they did in the years before to the coronavirus epidemic.

Research Methodology

Problem Identification:

To explore all negative effects of work from home culture during the COVID-19 pandemic with the employees.

Objectives

To explore and review the detrimental effects of the "Work from Home" culture during the COVID-19 pandemic.

Research Design

Conclusive research of Causal nature

Data sources

Current research is based on secondary data so researcher has reviewed various secondary sources like Ph.D. dissertations, Research papers, journals, reference books for collecting data.

Numerous negative aspects of full time WFH

During a review of the literature, it was found that WFH had more negative elements than positive ones. Employees who work from home may have fewer social interactions with co-workers and less physical activity, such as less walking to and from meetings. Additionally, prolonged screen exposure from full-time computer work can cause weariness, exhaustion, headaches, and eye-related issues. Full-time WFH without daily face-to-face encounters and social support might exacerbate mental health problems such social isolation and depression in people who live alone. Others may find it challenging to mentally separate themselves from work due to fuzzy work-life boundaries, which can lead to an increase in stress and worry.

Fig. 1 Mental health since the outbreak began [*Source: Employee Experience (2020)*]

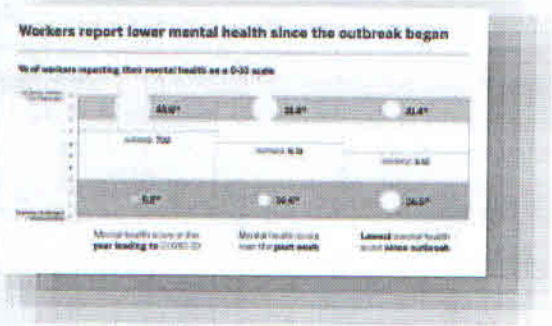
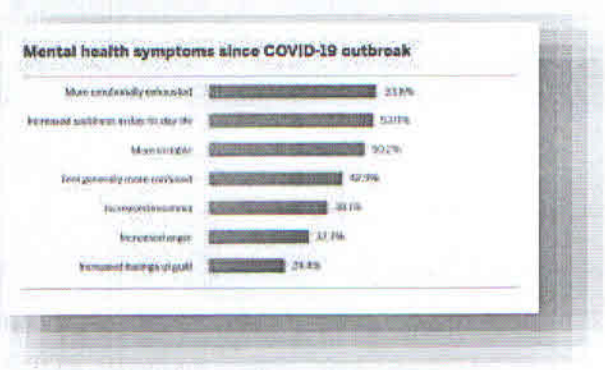


Fig 1 shows that since the outbreak started, employees indicate that their overall mental health is worse and that their "lows" are substantially lower. Balancing work schedules around the needs of other family members is a typical cause for anxiety regarding work-life boundaries. For some parents, this causes work time to become "porous" because they may need to complete household tasks and run errands in between work meetings. Since these are the only calm times where parents may focus on their work without being constantly interrupted, in some circumstances parents may decide to forego their sleep hours and work at night or in the early morning. Emotional weariness may result from ongoing work-family strife.

Fig. 2 Mental health symptoms in COVID-19 [*Source: Employee Experience (2020)*]

ISSN 0976-5425
VOL-XXX November 2023



There are several interconnected ways that problems with mental health present themselves. More than half of respondents claim to feel more emotionally spent, sadder, or angry according to Fig 2. The sudden transitions to WFH and other elements linked to the COVID-19 pandemic offer a distinctive environment for examining the impact of WFH on physical and mental health. Social and behavioural factors have the most obvious effects on health. Particularly, the mandated lengthy confinement to the home during the pandemic may have contributed to emotions of general anxiety and depression, which frequently result in modifications to routines and eating habits. These modifications to eating habits and physical activity patterns may combine with other WFH-related stressors, having an influence on both physical and mental health. The closing of schools and day-care facilities forces working parents to home-school their children in addition to managing a more chaotic workplace with more distractions, which is likely to have an even greater impact on these behaviours.
WFH during the COVID-19 pandemic has also highlighted areas of need for the physical space in home office environments in addition to behavioural and social changes. It is important to note that not every worker has access to a dedicated workstation at home, which can lead to sharing workstations with children who must attend school remotely setting up temporary desks like the dining table, or working in different locations throughout the day like kitchen counters, sofas, coffee tables, and beds. The elimination of transportation, reduced business travel, and increased use of computers to conduct meetings rather than face-to-face meetings at many distinct physical locations allow workers to stay longer hours at their workstations during the pandemic. Increased discomfort and pain can result from increased stress brought on by sharing workplaces, poor body mechanics brought on by an inadequate physical workstation, and extended periods of inactivity. Furthermore, workers may not pay as close attention to maintaining the IEQ environment at home as they may in office work environments with central heating, ventilation, and air conditioning systems available. In particular, working in an environment that is not intended for work can result in poor IEQ conditions, which can have a negative impact on both physical and mental well-being and lower overall work performance.

Conclusion

Due to stay-at-home demands to comply with social distancing rules, many workers were abruptly asked to WFH as a result of the COVID-19 epidemic. These employees noted deterioration in their general physical and mental health as well as an increase in the number of new health problems. Lack of communication with co-workers, increased junk food consumption, decreased physical exercise, and having a toddler at home were all significant predictors of worsening physical and mental health. Numerous people have been impacted by COVID-19. Many organisations have forced to alter their conventional working practises in order to stop the epidemic from spreading further. The introduction of WFH has offered some ease, but as the pandemic's impact has grown, it has also had some repercussions on businesses, workers, and HR professionals that will last into the post-pandemic future.
This study contends that during the COVID-19 crisis, when people were working from home, managers and practitioners needed to address issues like job skill enhancement, employee stress due to the crisis, work-family imbalance, and corporate culture reinforcement. Psychological effects like loneliness and isolation, anxiety, stress, and pressure, depression, lifestyle changes, social life,

ISSN 0976-5425
VOL-XXX November 2023

increased fatigue, and blurred lines were also discussed.

Scope for further Research

To assess the true impact and changes in their working conditions, a survey might be conducted about the negative aspects of the pandemic that had the greatest influence on the employee. Future research should focus on particular wellbeing issues related to remote work and homeworking and how it affects people's capacity for adaptation and satisfaction with WFH. These might involve taking human aspects into account, gathering details about the settings being used for WFH and any modifications needed, and considering ergonomics to provide information on how businesses might be able to support employees' remote working in the future. It is also necessary to conduct an empirical study to examine the difficulties organisations confront while implementing the WFH.

References

1. Amabile, T., & Kramer, S. (2013, July 24). Working from home: A work in progress. Harvard Business Review. https://hbr.org/2013/07/working-from-home-a-work-in-pr
2. Rants M, Ben S, Francesco Y. Working from Home and COVID-19: The Chances and Risks for Gender Gaps [ZEW expert brief] 2020; Available : https://www.zew.de/PU82032-1 Accessed November 25, 2020.
3. Bartik A, Cullen Z, Glaeser EL, Luca M, Stanton C. What jobs are being done at home during the COVID-19 crisis? Evidence from firm-level surveys. NBER Working Paper [No w27422] 2020; Available at SSRN: https://ssrn.com/abstract=3637723. Accessed November 25, 2020.
4. Bloom, N., Liang, J., Roberts, J., & Ying, Z. J. (2015). Does working from home work? Evidence from a Chinese experiment. The Quarterly Journal of Economics, 130(1), 165-218
5. Bouziri Tavares AI. Telework and health effects review. Int J Healthc 2017; 3:30.H, Smith DRM, Descatha A, Dab W, Jean K. Working from home in the time of COVID-19: how to best preserve occupational health? Occup Environ Med 2020; 77:509– 510
6. Chung, H., van der Lippe, T. Flexible Working, Work-Life Balance, and Gender Equality: Introduction. Soc Indic Res 151, 365–381 (2020). https://doi.org/10.1007/s11205- 018-2025
7. Clark, S. C. (2000). Work/family border theory: A new theory of work/family balance. Human Relations, 53(6), 747–770
8. DeFilippis E, Impink S, Singell M, Polzer JT, Sadun R. Collaborating during coronavirus: the impact of COVID-19 on the nature of work. NBER Working Paper [No w27612] 2020; Available at SSRN: https://ssrn.com/abstract=3665883. Accessed November 25, 2020
9. Di Renzo L, Gualtieri P, Cinelli G, et al.. Psychological aspects and eating habits during COVID-19 home confinement: results of EHLC-COVID-19 Italian Online Survey. Nutrients 2020; 12:2152.
10. Dubey, A., Tripathi, S., (2020). Analyzing the Sentiments towards Work-From-Home Experience during COVID-19 Pandemic - Letter from Academia, Journal of Innovation Management, www.open-jim.org, 8(1),13-19
11. Employee Experience - The Other Covid-19 Crisis: Mental Health (2020). https://www.qualtrics.com/blog/confronting-mental-health/
12. Evanoff BA, Strickland JR, Dale AM, et al.. Work-related and personal factors associated with mental well-being during COVID-19 response: a survey of health care and other workers (preprint). J Med Internet Res 2020; 22:e21366.
13. Gallacher, J. (2021). Workers missing teamwork and friendship in pandemic. Hrmagazine.co.uk.Retrievedfrom https://www.hrmagazine.co.uk/articledetails/workers-missing-teamwork-and-friendship-in-pandemic.
14. Golden, T. D. 2006. Avoiding depletion in virtual work: Telework and the intervening impact of work exhaustion on commitment and turnover intentions. Journal of Vocational Behavior,

ISSN 0976-5425
VOL-XXX November 2023

33. Tavares AI. Telework and health effects review. Int J Healthc 2017; 3:30.
34. Thompson C. 2020; What if working from home goes on … forever? [The New York Times Magazine].Availableat: https://www.nytimes.com/interactive/2020/06/09/magazine/remote-work-covid.html. Accessed November 25, 2020.
35. Vander Elst T, Verhoogen R, Sercu M, Van den Broeck A, Baillien E, Godderis L. Not extent of telecommuting, but job characteristics as proximal predictors of work-related well-being. J Occup Environ Med 2017; 59:e180–e186.
36. Vischer, J. C. (2007). The effects of the physical environment on job performance: towards a theoretical model of workspace stress. Stress and health: Journal of the International Society for the Investigation of Stress, 23(3), 175-184.
37. Ward, H. (2017). The impact that working from home has on the overall motivation and performance levels of employees working within a banking organization (Doctoral dissertation, Dublin, National College of Ireland).

ISSN : 0378 4568

anveṣak

A bi-annual journal

Vol. 53, No.1 January – June 2023

Sardar Patel Institute of Economics and Social Research

Thaltej Road, Ahemdabad-380 054, India

Content

ISSN: 0378 – 4568
UGC Care Group 1 Journal

IMPACT OF CEPA BETWEEN INDIA AND UAE ON FDI FLOWS

Dr. Umeshwari P. Patil[1] Dr. Sudhir A. Atwadkar[2]
[1]Assistant Professor,ATSS's Institute of Industrial and Computer Management and Research Nigdi, Pune.
Email- umeshwari_patil@rediffmail.com
Principal,SNBP College of Arts Commerce Science &Management Studies, Morwadi, Pimpri, Pune.
Email- sudhir.atwadkar@gmail.com

Abstract

Today, no country in the world can rely on its own resources to the fullest. Because each nation has its own natural resources, climate, geography, and energy sources, all nations are somehow depending on each other. Today's global economy is characterized by a high degree of interconnectedness across countries. There has always been trade between India and the United Arab Emirates. Both countries share deep linkages in terms of their respective cultures and histories. International relations would be incomplete without trade. There has been a long history of trade between India and the United Arab Emirates. It is no secret that India and the United Arab Emirates have a longstanding trading relationship dating back to 1971. Even though India has forged strategic ties with a number of West Asian countries, the United Arab Emirates (UAE) has emerged as the most important. Indian Prime Minister Narendra Modi's visit to the United Arab Emirates in 2014 and the return visit of UAE's crown prince to India on the occasion of Republic Day in 2016 and 2017 have strengthened their ties. There were several agreements reached regarding security, defense, trade, investment, and infrastructure, and the fight against terrorism during these visits, as the relationship has shifted from a bilateral to a strategic one. It has been easier to understand maritime issues since the United Arab Emirates took over the chairmanship of India's Ocean Naval Symposium (IONS) shortly after India. There was close to $60 billion in Indian-UAE commerce in 2014-15. India's trade with the United Arab Emirates is being examined in this study (UAE). This research mainly focuses on the trade between these two countries in terms of both volume and composition.

Keyword- CEPA, UAE,UAE Trade, FDI Flows, Arab Emirates

Introduction

In 2019, India was the UAE's largest export destination and second-largest trade partner, as well as the ninth largest investor, with almost $11 billion in cumulative foreign direct investment. "With the signing of the India-UAE CEPA, both nations are entering a golden era of economic and trade cooperation," commerce and industry minister Piyush Goyal tweeted.

ISSN: 0378 – 4568
UGC Care Group 1 Journal

The accord is likely to benefit India's labor-intensive and job-creating industries the most, including gems and jewelry, textiles, leather, footwear, sports goods, furniture, pharmaceuticals, medical devices, and autos.

The UAE is giving overall duty removal on over 97 percent of its tariff lines, which corresponds to 99 percent of India's value-added exports. Separately, zero duty on an additional 9% of the trade value on products such as electronics, chemicals, and petrochemical.

There was a strong emphasis on aid, investment, and business as main means of promoting international cooperation and interdependence. A global economy is more likely to arise when current conditions are more closely aligned with the ideal than when they deviate too far from that goal. The United Arab Emirates (UAE) and India have had a long-standing economic relationship. First, it grew because of connections formed between people of different faiths and political ideologies. These two countries have been linked by sea for millennia. The United Arab Emirates (UAE) consists of seven emirates: Abu Dhabi, Dubai, Sharjah, Ajman, Umm-al-Quwain, Ras-al-Khaimah, and Fujairah. The UAE was formerly known as the Trucial Coast, the Trucial Oman, and the Trucial States.[2]

Foreign money is critical to the economic development of both developed and developing countries. International private capital flows have been expanding quickly with periodic downturns, owing to the advantageous economic environment generated by global deregulation. Foreign capital currently accounts for a sizable portion of domestic investment, job creation, industrial production, and exports in a variety of economies. Because 'Capital' is the most important factor in growth and development. A developing country need additional finance for development, which can be borrowed from both domestic and international institutions. While loans and aid from foreign governments are debt-bearing, foreign investment has no committed debt burden. As a result, the development strategy is to attract foreign investment, which will not only complement domestic capital but also bring the advantages of superior technology and management capabilities.

Economic growth in both rich and developing countries is greatly aided by foreign money. International private capital flows have been expanding at a rapid pace, with occasional dips, thanks to the favorable economic environment created by global deregulation. In many economies, foreign money now accounts for a major portion of domestic investment, employment creation, industrial production, and exports. For growth and development, 'Capital' is the most critical component of every organization. [3] Financial assistance from both domestic and international sources is often necessary for a developing country's progress. Foreign investment, on the other hand, does not include any need to pay back loans or subsidies from foreign governments. An effective growth strategy therefore includes enticing foreign investment, which brings with it not just additional local money but also cutting-edge technological know-how and managerial expertise. [4]

Commercial links between the two countries are currently very strong. Gems and Jewelry, engineering goods, cattle, tea, fruits, vegetables, chemicals, spices, textiles, and rice are

some of the most common exports to the United Arab Emirates. Crude and petroleum products, precious and semi-precious stones, transportation equipment, gold and silver, pearls, and electronic items are the most imported goods entering India. 81.2% of all Arab investments in India are from the United Arab Emirates.[5]

In the near future, the proposed India-UAE Comprehensive Economic Partnership Agreement (CEPA) would go into effect. It is estimated that the bilateral trade between India and the United Arab Emirates would reach $45 billion in Feb 2022, which is an increase from $185 million in 1980, according to the UAE ambassador to India Ahmed Abdul RahmanAlbana. [6]

Review of Literature

Business Line's VimlaVasan (2000, p. 7) wrote that more than 600 Indian enterprises have set up shop in the UAE's free trade zone. International enterprises seeking to establish a presence in the United Arab Emirates must partner with an existing UAE company in order to take advantage of free trade zone operations. Consequently, Indian companies are drawn to free zones because of the tax-free regime, high-quality infrastructure, and full control of the company. Authors discuss the advantages of investing in free trade zones and call for further investment in these areas as production units (not just warehouses). This piece paints a positive picture of Indian companies doing business in the United Arab Emirates.

The study "A Brief Analysis of India-Japan Bilateral Trade: A Trade Intensity Approach" by Sundar and Ambrose (2014)[8] studied the trade between India and Japan. In order to gauge the volume of trade between India and Japan, the researchers turned to Kojima's Trade Intensity Index. The analysis found that India's exports to Japan haven't changed much throughout the years. Between 2001 and 2011, Japan's imports from India decreased at a considerably greater rate than its exports to India. Trade intensity, regardless of whether it is export or import, has decreased over the study period.

On the subject of "India's Globalization: Evaluating the Economic Consequences," Baldev Raj Nayar, (2006) [9] provides a comprehensive analysis of how globalization has affected the Indian economy. On the topic of foreign trade and macroeconomic statistics like GDP, he discusses the Indian economy's profound interconnectedness with global economies as well as the impact of numerous social issues on the Indian economy.

The Geoffery Kemp research from 2010[10] [9] India, China, and Other Asian Powers: Asia's Increasing Presence in the Middle East" As with India's relations with the other Gulf States, the author says, the UAE-India relationship has been driven by economic considerations. The author also discusses Indian foreign policy and economic ties with the United Arab Emirates.

Heena Goel and Anjali Sharma in their journal "India's Merchandise Trade with UAE: Growth and Prospects and Future Potential"[11] show Indian commerce trade with the United Arab Emirates between 1997-1997 and 2013-2014. To get to the bottom of this problem, the authors of this article turned to statistical measures like the Real Growth Rate and the Export and Import

Intensity Index. As this article shows, India and the UAE have been steadily improving their bilateral trade relations, which has led to an expansion of their economic, commercial, and strategic ties.

Objectives

- Analyzing India's relationship with the United Arab Emirates in terms of commerce and economics (UAE).
- To examine Indian foreign policy towards the UAE.
- Analyze the growing economic ties between India and the United Arab Emirates.
- To look at the most recent advances in the field of investments and trade.
- Studying India-UAE Investment Relations.

Research Methodology

This research relies on data that has already been published in the form of secondary sources. The Indian and UAE embassies, the Ministry of Commerce, and RBI periodicals and publications were used to acquire the information for this article. The Director General of Foreign Trade, as well as newspapers, books, and other media.

Result and Discussion

India's largest source of FDI comes from the island nation of Mauritius. A total of 127,578 million dollars was invested in India by Mauritius-based companies between April 2000 and March 2018, accounting for 34% of FDI inflows. As a result of an agreement between Mauritius and India, there are no multiple taxes in the country. Japanese investment in India has been steadily declining since the 1990s, falling from fourth to sixth place in the last decade, but the signing of CEPA has restored Japan to the top slot. [12]

Rank	Country	Amount of Investment	% Share in FDI equity inflows
1	Mauritius	127,578	34
2	Singapore	66,771	18
3	Japan	27,286	7
4	UK	25,438	7
5	Netherlands	23,482	6
6	U.S.A.	22,417	6
7	Germany	10,845	3
8	Cyprus	9,573	3
9	France	6,237	2
10	U.A.E.	5,754	2

Table 1. Top Ten Investing Countries in India Apr 2000- Mar 2018 (US$ millions)

ISSN: 0378 – 4568
UGC Care Group 1 Journal

As a whole, bilateral trade interactions are extremely significant. The 1970s worth of India-UAE trade was about $180 million; in 2016-17, it was about $60 billion. An increasing amount of trade is taking place between India and UAE, the region's primary commercial partner. The following trade figures can be extrapolated from information provided by the Department of Commerce (Ministry of Business).

S. No.	Year	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18(Sept)
1	Export to UAE	36,316.65	30,520.42	33,028.08	30,290.01	31,305.80	15,254.83
2	Import from UAE	39,138.36	29,019.82	26,139.91	19,445.68	21,498.20	11,347.62
3	India's total trade with UAE	75,455.01	59,540.24	59,167.99	49,735.69	52,804.00	26,602.45
4	India's total trade	791,137.23	764,605.09	758,371.89	643,296.75	660,599.58	366,160.21
5	% Share of UAE trade in total trade	9.54	7.79	7.80	7.73	7.99	7.26%

Table 2. India-UAE total trade for the last 5 years Value in US$ Million

The UAE is a major importer of petroleum and petroleum products, precious metals, gemstones, jewelry, minerals, chemicals, copper, Aluminium, and wood and wood products.[14]

HS Code	Commodity name	2014-15	2013-14	2012-13	2011-12	2010-11
25	Salt, Sulphur, Lime, Cement	314.78	308.18	288.27	308.08	145.31
27	Mineral Fuels/Waxe	13509.04	13263.35	14498.68	15102.54	9398.23
39	Plastic and Articles Thereof	479.16	341.23	371.28	286.56	240.97
71	Natural/Cultured Pearls, Jewelry, Coin	8795.44	11899.69	20376.74	18235.49	20896.32
72	Iron and Steel	572.48	460.79	560.30	556.23	350.51
74	Copper and Articles Thereof	638.70	681.13	450.81	396.45	263.20
76	Aluminium and	502.26	427.76	371.22	294.06	281.86

ISSN: 0378 – 4568
UGC Care Group 1 Journal

	Articles Thereof					
89	Ships, Boats and Floating Structure	243.35	569.55	488.06	133.79	199.48

Table 3. India's major import items from UAE

Mineral fuels, precious and semi-precious stones, gems and jewelry, clothing, cereals, and mechanical appliances are among the most popular exports from India to the UAE. [15]

HS Code	Commodity name	2014-15	2013-14	2012-13	2011-12	2010-11
10	Cereals	580.97	560.92	571.82	896.10	657.25
27	Mineral Fuels/ Mineral Oil/ Waxe	6519.64	5039.94	6964.32	6571.21	4981.83
61	Apparel and Clothing Accessories, Knitted Or Crocheted	1142.70	789.86	642.64	626.33	539.50
62	Apparel And Clothing Accessories, Not Knitted Or Crocheted	1507.56	947.94	792.64	725.04	562.36
71	Natural/ Cultured Pearls, Precious Or Semi-Precious Stones/ Jewelry	12280.37	12778.80	18890.69	18392.75	19809.26
72	Iron And Steel	641.60	528.18	562.33	524.84	348.28
73	Articles Of Iron Or Steel	701.71	791.22	723.76	461.52	525.65
84	Nuclear Reactors, Boilers, Mechanical Appliances	711.47	637.27	802.12	730.71	549.55
85	Electrical Machinery And Equipment	615.73	1035.73	903.61	974.56	805.73
89	Ship, Boats And Floating Structure	1181.39	1068.58	686.81	1217.82	487.80

Table 4. India's Major Export Items to UAE

Conclusion

No doubt, India and the UAE are working hard to deepen their economic and trade connections, and this development is likely to continue following the recent visit of Indian Prime Minister

Modi to the UAE, where both nations agreed to enhance their bilateral trade by 60% over the course of five years. Simple logistics and transportation were used in ancient times to conduct business. As a result of this long-standing link, the people of these countries have been able to share and establish social, cultural, religious, linguistic, and cross-cultural ties. Both India's exports and imports never fell below unity over the study period from 2007 to 2016, which indicates that the two countries have an excellent trading partnership when compared to world trade. In recent years, India's export and import intensity with the UAE has decreased, which is cause for concern. Both the global economic downturn and some domestic policy initiatives aimed at reducing the bilateral trade deficit are to blame for this reduction.

"It is expected that the CEPA will lead to an increase in bilateral trade from $60 billion to $100 billion in the next five years," the government said in a statement following the India-UAE Virtual Summit, which was attended by Prime Minister Narendra Modi and Abu Dhabi Crown Prince HH Sheikh Mohammed bin Zayed Al Nahyan.

References

1. K.A. Goyal & A. Vajid 2017, "Revealed Comparative Advantage of India's Rice Export with selected countries (A Case Study), Pacific Business Review International, Vol9, Issue9, March 2017 PP 51-56.
2. K.A. Goyal & A. Vajid 2016, "An Analysis of Bilateral Trade between India and UAE", Pacific Business ReviewInternational,Vol1,Issue2,July2016PP94-100
3. Nilanjana Kumar. (2012). Effect of Economic Indicators on Export Performance of India Pre and PostrLiberalisation Period. European Journal of Business and Management, Vol.4, 22-33.
4. RohmaSadaqat. (2017). before the dirham UAE used the rupee. Retrieved January 27, 2017 from Khaleej Times.
5. Hussain, Zakir. ,India and the United Arab Emirates: Growing Engagements,' Indian Council of World Affairs, New Delhi, and (June 24, 2012):1
6. Pradhan, Kumar Prasanta. Accelerating India's ‚Look West Policy' in the Gulf, IDSA Issue Brief, New Delhi, February 3, 2011
7. VimalaVasan (2000). Indian Companies Warm up to UAE Free Zones, Business Line, July 25th 2000.
8. Sundar Raj P & Ambrose B 2014, "A Brief Analysis of India-Japan Bilateral Trade: A Trade Intensity Approach",International Journal of Economics,Commerce and Management Vol 2,Issue 2,2014,PP 1-7.
9. Baldev Raj Nayar. (2006). India's Globalisation: Evaluating the economic consequences. East-West Center Washington publications.
10. Geoffery Kemp 2010, The East moves west: India, China and Asia's Growing presence in the Middle East, Brooking Institution Press, Washington D.C., and Chapter 1 & 2.

11. Heena Goel, Anjali Sharma. (2015). India's Merchadise Trade with UAE: Growth, Prospects and Future Potential. International Journal of Science Technology and Management, Vol.4,142-149
12. Roy, Singh Meena. "India, UAE Set to Give New Impetus to Strategic Partnership"January 24,2017 https://thewire.in/102258/indiauaesettogivenewimpetustotheirstrategicpartnership/
13. MathurArpita. (2010). Japanese Foreign Direct Investment in India: A weak link in ties. S Rajaratnam School of International Studies (RSIS).
14. VyasAbhishek, & Vijay, K. (2015). An analytical study of FDI in India (2000-15). International Journal of Scientific and Research Publications Vol.5
15. PouriaMohajeri 2015, Trends of India Trade with Persian Gulf Countries, Indian Journal of Applied Research, Volume: 5, Issue 9, Sep. 2015. pp 199 to 207.

ISSN : 0378 4568

anvesak

A bi-annual journal

Vol. 53, No.1 January – June 2023

Sardar Patel Institute of Economics and Social Research

Thaltej Road, Ahemdabad-380 054, India

Content

ISSN: 0378 – 4568
UGC Care Group 1 Journal

Innovation In Education & Desired Future

Sudhir A. Atwadkar[1] Akshata Sakhwalkar[2] Umeshwari P. Patil[3]

[1]Professor, SNBP College of Arts Commerce Science & Management Studies, Pune

[2]Assistant Professor, Sinhgad Institute of Management, Pune.

[3]Assistant Professor, Institute of Industrial & Computer Management & Research, Pune

Abstract

Present and future globally there is a requirement of critical and creative thinkers to resolve the uncertainty. Innovation in educational systems plays an important role in increasing creativity and innovation among the people. In the 21st century, there is a huge demand for multiskilled human resources who provide solutions for uncertainty. The implementation of innovation in education will ensure the development of existing structures and provide knowledgeable multiskilled talents. With the technological advancement, the methods of gaining the knowledge have entirely changed. Worldwide new evolving technologies are primarily impacting on education sector and industry. Innovative technologies changing learning structures and supporting the diverse needs of learners. Today, science and technology are essential components in the development of any country and they play a major role in improving the quality, safety, and security of life of humans. Thus, providing help for inculcating scientific temper in the students assumes added significance. Advanced technical gadgets and devices make everything easy in day-to-day educational activities. This paper focuses on globalization and the significance of innovation in the educational sector, the emerging technologies in education, and the implementation problems with creation, and transformation.

Key Words – Innovation, Education, Technology, Knowledge and Transformation.

Introduction:

Innovations in technology enhance communication and information which leads to transformation and exchange of knowledge which creates a knowledge society and people get the full citizenship of knowledge. In the inauguration of the 107th Indian Science Congress (ISC) at Bengaluru our Prime Minister, Shri Narendra Modi said that the growth story of India depends on its achievements in the Science and Technology sector and there is a need to transform Indian Science, Technology and Innovation. Education is a crucial need of society and a social foundation for successful survival. Education is an asset that the entire life of an individual holds and drives growth and guards the morality of the country. Multiple education streams create multitalented faces and bring together a multifaceted society with a variety of skills among people. Since the primeval, Indian culture has prominent impact on education. The Indian educational societies provide an affluent and protected life to society. Over the past decades, there has been a change in the culture of Indian education institutes and produced multiple leaders for the future. At the origin of this revaluation is the culture of innovation.

Worldwide new evolving technologies are primarily impacting on education sector and industry. Innovative technologies changing learning structures and supporting the diverse needs of learners. Technology is fetching novelties in the Indian Education system. Creativity and innovations take newness in learning methodologies and build up new ways of education. The chalkboard structure is replaced with a digital and smart learning system. The power of innovation structures in education inspires creative thinking and is result-oriented. Innovative education models provide sustainability and the probable shape for the upcoming generation. This change brings a new way of learning and vast potential when education collaborates with innovation.

Serdyukov(2017) emphasizes education that should not only be excellent but also continuously develop to meet the demands of a globalized environment. It also focused on the structure and design of the education system which provides knowledge to the society. OECD (2010) highlighted the outcomes of the 21st-century education system should be knowledge-developing, problem-solving, collaborative, and expertise and must be consistent and measurable. As education has been a priority area since the beginning of the Indian policy and initiatives. The Indian government has to make numerous efforts to boost innovative culture. The New Education Policy 2020 (NEP 2020) brings new highlights on innovation, creativity and quality. It provides improvements in all segments of education from primary to higher education. This innovative development should be systematic, reliable and ascendable which is expected by teachers, researchers and policymakers for innovative concepts and teaching-learning for qualitative life to all. In the light of above discussion, this paper focuses on the significance of innovation in the educational sector, the emerging technologies in education, and the implementation problems with creation, and transformation. This paper also revels on globalisation and its impact on education sector.

Review of Literature:

Voogt (2010) elaborates that ICTs are the reason that global society has transformed into a knowledge society and no one denies accepting the changes in the world. This thing creates the pressure on educational structure to accept everyone's society and economy of knowledge. OECD (2010) emphasizes on learning outcomes of 21st century and these are skilled communication, collaboration, self-regulation, problem-solving, innovation, knowledge building and adoption of technology for learning and students are the key and at the centre of the entire process of education. Ilhan and Karatas (2015) highlighted that the students are active in the learning procedure and this will help to become knowledge-builders to students. Sahlberg (2009) emphasizes the present situation of the world and the knowledge economy. Also highlighted on the shortest possible way of integrated the education system into the knowledge economy. Sahlberg (2010) mentions that students become knowledge consumers in the traditional education system which transformed into knowledge manufacturers by adopting innovative education therefore today's global society becomes knowledge and innovation in the future. Blouin (2009) highlighted the fact that students are ready to adopt the innovative education system but most faculty and institutions are not ready for transformation. Findikoglu, Alci and Karatas (2015) stress that individuals will be active in adopting technology but adopting every new technology is not possible or including ICTs in the curriculum. Salampasis (2013) focuses on the difference between innovation and creativity. The basis of innovation is creativity. Creativity is producing knowledge whereas innovation is not necessary to the adoption of technology. Mostly innovation is seen use of technology. Pisanu and Menapes (2014) emphasize clarification on the confusion of innovation in education and the necessity to include traditional and new technologies and create an educational environment by updating existing technologies. Bocconi, Kampylis and Punie (2012) stress that educational practices can be innovative and modernized by creative and critical learners who can assess the progress.

Educational Innovations:

There is no specific definition for innovation in education. The essence of innovation education is a wide angle of openness to observe the problem and to attend to different approaches to improve knowledge and transfer with innovative teaching-learning strategies. Innovation education is attending and solving a real problem through creative and new ways to promote equitable learning. Innovation in education assesses the scale of the solution to the scale of the challenge. The thinking of new things is creativity and the implementation of new things is innovation. To look beyond to presently doing and develop different knowledge which helps to do the work in a new way. Educational innovation is concerned with all stakeholders and requires active involvement and participation. In terms of learner's educational innovation is identifying abilities, skills, and competencies that enhance attitudes, dispositions, behaviours, motivation, self-assessment, self-efficacy, autonomy, as well as

communication, collaboration, engagement, and learning productivity. Whereas in terms of teachers enhance the teaching quality through teaching styles, motivation, creativity, and responsibility by providing optimum resources. Productivity is determined by estimating the outcomes obtained vs the invested effort in order to achieve the result.

Education Technology & Basic Principles:

The structure of education is influenced by education technologies and these technologies are the most significant force to change the education structure. The computer plays an important role in enhancing the performance of education technologies. The basic principles of educational technology are -

Principle of Active Involvement - This principle ensures the active role and involvement and focuses on searching for and acquiring knowledge.

Principle of Connectivity- this principle involves building a relationship between and among experiences. The connectivity process enables recall connection and remembering.

Principles of Integration – this principle states that brings the varied elements together from a combined and harmonious whole. It should be able to mix the past experiences together for the understanding of meaningful patterns.

Principle of Active Learning – this principle provides a quick and easy way of understanding concepts to learners and enables them to learn the new knowledge in their own way.

Principle of Feedback - this principle works both sides and provides improvement opportunities and suggestions for the betterment. The feedback provides the performance and the weaknesses and strengths.

Globalization and Education:

There is a lot of different opinion and perceptions of people about globalization. Jan Aart Scholte states that some people have considered globalization as progress prosperity and peace whereas some people invented it as deprivation disaster and doom. It is obvious that the impact of globalization has been both positive and negative in the sector of education. With the view of the positive impact of globalization, it is seen that globalization is the new source of the utilization of knowledge and new ideas in the world and gives various opportunities. The positive impacts of globalization in education led to a fundamentally transformed world in every aspect. The world economy growing modest and more knowledge-based. It builds up the interconnected methods of teaching-learning from a worldwide system and develops sustainability. These initiatives provide primary to higher education globally and create multinational leaders. At early age-integrated ideologies from various societies reach well-balanced assumptions about the world as a whole which education assists as initial to global stability. Some challenges of globalization for learning knowledge and education will offer the ability to be more acquainted and contented. Globalization and education affect the mutual goal of the young generation for a bright future. It provides an increased quantity of scientific and technically knowledge-based trained people as knowledge is the key factor in the emerging economy and the high demand for trained manpower. Globalization crosses the boundaries of space and time which boosts the new structure of learning education knowledge and activities through modern information and communication technologies. Globalization inspires investigations, and experimentation to promote the potential of effectiveness of teaching learning. The sharing of multiple developments of intellectual knowledge and skills supports and aids in yielding cooperation for various developments of individuals and society worldwide. It promotes collaboration, harmony, and cultural diversity for understanding on a global level. For the purpose of reengineering education and mechanisms for the exchange of thoughts and experiences support to policymakers and experts.

Type of Innovations in Education:

Based on the Oslo Manual, the OECD (2016) categorizes four types of innovation in education which are Process, Products, Organisational, and Marketing. The implementation of goods or services that develop from their initial features or use in product innovations. The process innovation is the implementation of new ways of distribution of the services through innovative technologies. Innovation in marketing is a novel method that focuses on the design, packaging, pricing, and promotion of goods or services. The new approach and strategies of the organization are introduced by the organization innovations. Smith (2009) emphasizes two types of innovation in the education sector which are disruptive and sustaining. Disruptive innovations are based on diverse practices to serve the people or segment that is out of the box which creates new trends. To bring enhancement to the existing system the innovative things applied are called sustaining innovations. According to Mykhailyshyn (2018) there are three types of innovation in the internal environment of education which are educational, administrative, and ideological innovation. Educational innovations are related to the change in academic activities whereas administrative innovations are related to supporting and managing activities in the education process and ideological innovations are concerned with cocurricular programs and events held inside and outside. From the above discussion innovation in education is described as the new methodologies to execute the product process or anything that enhances the performance or creates the changes in existing educational system or structure.

Barriers to Innovation in Education:

The main aim of innovations is to create changes in longstanding systems. The students and teachers face the changes straight way because to that they are the biggest barricade in the implementation of innovations in education (Maier 1971). As per Hare (1978) there is censures may come from stakeholders when innovations create fundamental changes and there are no significant results from such innovations. Serdyukov (2017) stresses that innovation is more difficult to implement in school structure due to disruptions and create more burdens to move from the comfort. According to Smith (2009), the obstacles to innovation are market subtleties that are uncooperative to innovations which broke the R&D sequence due to falsehood in traditional political and system procedures in education. The lack of understanding of the problem and clarity to resolve the problems, and ideological differences created confusion among the policy thinkers prohibited the innovations.

The Significance of Innovation in Education:

The inspiration and improvement in students and teachers are made by only the innovative practices in research, the use of technologies, and the exploration of the activities. Innovation encompasses the different ways of looking the problems and resolving them. Innovation improves the level of thinki- and creates the ability to solve complexities. Innovation doesn't mean only the use of technology .. means the creation of new solutions and creative ideas through the adopted technologies to tackle the problems. There are tangible benefits of innovation in education that build up in learners. The different benefits of innovations are – creating an authentic and interesting challenge among the learners, encouraging and making the learners research-oriented, developing complex skills among the learner, better conceptual understanding, and developing critical thinking for everyday uncertainty. With the arrival of the latest technologies, it has become a trend to arrange what comes in handy at first glance among many gadgets and tools.

Conclusion:

In conclusion, Dr. Vikram A. Sarabhai, the Father of the Indian Space Programme had envisioned that space resources have the potential to address the real problems of man and society. The Satellite Instructional Television Experiment (SITE) was the largest sociological experiment in the world. It has on Education. Innovation creates better practices that enhance the performance level of educational organizations. Innovations fundamentally improve the quality of teaching and learning and the efficiency provides a better environment for stakeholders. The education system is influenced by advance information and communication technologies and these forces change the education

structure. The using of technology in education becomes an integral part of the future. It has become the need of today and a requirement of the future.

Reference:

1. D. G. Salampasis. Enhancing creativity and innovation including entrepreneurship at all levels of education and training, Brussels, ECET, 2013.
2. D. Ilhan, H. Karatas. An analysis on motivational beliefs and attitudes of undergraduates regarding learning English, The International Journal of Educational Researchers, Vol.6, No.2, 2015
3. Dayang Rafidah Syariff M. Fuad, Khalip Musa & Hamidah Yusof (2020) Innovation in Education, Journal of Educational Research and Indigenous Studies Volume: 2 (1), Journal website: www.jerisjournal.com e-ISSN 2682-759X
4. F. Findikoglu, B. Alci, H. Karatas. The correlation between pre-service teachers' attitudes towards technology and achievement in material design, Anthropologist, Vol.20, No.3, 744-753, 2015.
5. F. Pisanu, P. Menapace. Creativity and innovation: Four key issues from a literature review, Creative Education, Vol.5, No.3, 145-154, 2014.
6. Fuat Fındıkoğlu, Dilek İlhan (2016) Realization of a Desired Future: Innovation in Education, Universal Journal of Educational Research 4(11) http://www.hrpub.org DOI: 10.13189/ujer.2016.041110
7. Hare, W. (1978). The concept of innovation in education. Educational Theory, 28(1), 68-74.
8. J. Voogt. Teacher factors associated with innovative curriculum goals and pedagogical practices: differences between extensive and non-extensive ICT using science teachers. Journal of Computer Assisted Learning, Vol.26, 453-464, 2010.
9. Maier, N. R. (1971). Innovation in education. American Psychologist, 26(8), 722.
10. Mykhailyshyn, H., Kondur, O., & Serman, L. (2018). Innovation of education and educational innovations in conditions of modern higher education institutions. Journal of Vasyl Stefanyk Precarpathian National University, 5(1), 9-16.
11. OECD (2014), Measuring Innovation in Education: A New Perspective, OECD Publishing, Paris, available at: http://dx.doi.org/10.1787/9789264215696-en (accessed August 30, 2016).
12. OECD. Inspired by technology, driven by pedagogy: A systemic approach to technology-based school innovations, Paris, OECD, 2010
13. Peter Serdyukov (2017), Journal of Research in Innovative Teaching & Learning Vol. 10 No. 1, 2017 pp. 4-33 Emerald Publishing Limited 2397-7604 DOI 10.1108/JRIT-10-2016-0007
14. R. A. Blouin, W. H. Riffee, E.T. Robinson, D. E. Beck, C. Green, P. U. Joyner, . . . G. M. Pollack. Roles of innovation in education delivery, American Journal of Pharmaceutical Education, Vol.73, No.8, 1-12, 2009.
15. S. Bocconi, P. G. Kampylis, Y. Punie. Innovating learning: Key elements for developing creative classrooms in Europe, Spain, European Commission, Joint Research Centre, Institute for Prospective Technological Studies, 2012.
16. Sahlberg, P. (2010), "Educational change in Finland", in Hargreaves, A., Lieberman, A., Fullan, M. and Hopkins, D. (Eds), Second International Handbook of Educational Change, Springer, New York, NY, pp. 323-348.

17. Serdyukov, P. (2017). Innovation in education: what works, what doesn't, and what to do about it? Journal of Research in Innovative Teaching & Learning. 10 (1), 4-33. https://doi.org/10.1108/JRIT-10-2016-0007

18. Serdyukov, P. (2017). Innovation in education: what works, what doesn't, and what to do about it? Journal of Research in Innovative Teaching & Learning. 10 (1), 4-33. https://doi.org/10.1108/JRIT-10-2016-0007

19. Smith, K., & FUND, N. V. (2009). Innovation in public education: Problems and opportunities. San Francisco, CA: New Schools Venture Fund.

ISSN : 0378 4568

anveṣak

A bi-annual journal

Vol. 53, No.1 January – June 2023

Sardar Patel Institute of Economics and Social Research

Thaltej Road, Ahemdabad-380 054, India

Content

ISSN: 0378 – 4568
UGC Care Group 1 Journal

THE IMPACT OF SOCIAL MEDIA IN EMPLOYEE ENGAGEMENT OF MANUFACTURING ORGANIZATIONS IN PUNE CITY

Mrs. Swati Inamdar[1] Prof Dr Anand Gaikwad[2]

Research Scholar,SNBP College of Arts, Commerce, Science & Management Studies
Morwadi, Pimpri, Pune – 411 018
E-mail:inamdarswati11@gmail.com
Ph D Guide,Suryadatta Institute Of Management and Mass Communication, Bavdhan, Pune .
E-mail:dranandgaikwadag2023@gmail.com

Abstract
All the business activities in the world are characterized by features like cut throat competition, business and job uncertainty. This is the era of virtual organizations and businesses all overt the world becomes more and more Digitalized. Organizations are focusing on strategies of employee engagement on virtual platform.. The research paper focused on Human Resources Managers and employees working in Manufacturing Companies under Heating Ventilation and Air Conditioning Companies. The study contributes to the effectiveness of Social Media in implementing Employee Engagement of Heating Ventilation and Air Conditioning Companies (HVAC) of Pune City.

Key Words: Social Media, Heating Ventilation and Air Conditioning Companies. Employee Engagement, Pune City.

1. Introduction:

Employee Engagement is a human resource (HR) concept that describes the level of enthusiasm and dedication a worker feels toward their job. Implementation of employee engagement improves productivity of the company, and feels employees that their efforts make a difference. Employee engagement can be linked to job satisfaction and morale. Employees are more likely to be productive and higher performing. Employers can foster employee engagement through effective communication, offering rewards anddiscussing career advancement, keeping employees informed about the company's performance and providing regular feedback.

2. Literature Review :

Through employee engagement, everyone works together to achieve their professional and personal as well as organizational goals. Effective internal communication, consultation with employees and employee representation are all important elements in employee engagement.
Importance of Employee Engagement:

1. Engaged employees are more productive and customer focused, less likely to leave their organization immediately.
2. The more employee engagement less attrition rate is observed

Mrs. Swati Inamdar

PRINCIPAL
Subhadra Educational Society,
S.N.B.P. College of Arts, Commerce
Science And Management Studies
Morwadi, Pune-411018

3. Due to employee engagement performance of the employees, creativity, loyalty, innovation can be optimized.
4. Leadership, effective management, open two way communication, pay and benefits , fair and equal treatment , career development are important.

Employee Engagement is the level of commitment and involvement an employee has towards their organization and its values. An engaged employee is aware of business context and works with colleagues to improve performance within the job.
Engagement is the ability and willingness to contribute to the success. By contributing extra time, brainpower and energy.
Employee engagement describes employee's emotional and intellectual commitment to their organization and its success.
Employee Engagement enriches everyone in the workplace. It is necessary for all employees, leaders, organizations and customers. In engagement, people employ and express themselves physically, cognitively and emotionally during role performance. An engaged employee gives his company his 100 percent. Employee Engagement is a powerful retention strategy.
Through employee engagement everyone works together to achieve their professional, personal and organizational goals. Effective internal communication, consultation with employees and employee representation are all important elements in employee engagement.
Benefits of Employee Engagement for the Employer:

1. Engaged Employees are more productive and customer focused, less likely to leave their organization immediately.
2. The more Employee Engagement less attrition rate is observed.
3. Due to employee engagement employee performance, creativity, loyalty, innovation can be optimized.
4. Leadership, effective management, open tow way communication, pays and benefits, fair and equal treatment, career development are important.

3. Research Methodology

Social Media is the Platform for Employees where they can connect with each other on Digital Mode and can exchange information and share views. HR Manager has to keep the track of Employee Engagement.

Research Methodology: The Primary Data is collected from Employees working in Heating Ventilation and Air Conditioning Companies and using Digital Platform like Whats app, Facebook etc. for Sales Improvement and exchange of information purpose. Survey has been conducted.

Research Objectives:

1. To find out the role of Social Media in Employee Engagement.
2. To know methodology to create Social Media Strategy

3. To explore the advantages and disadvantages of Social Media as an Employee Engagement Tool.

Data Collection:

The non random method of sampling is used in the data collection.The sample size selected was 65 employees from two Companies from total population of 105 employees.The two Companies LG and Kirloskar Chillers Private Ltd were focused for the research purpose.

Data Analysis: Statistical Methods are used for data analysis. ANOVA Test is used for analysis of data.

Hypothesis for the study:

H0: The effectiveness of Social Media cannot be measured for Employee Engagement.

H1: Employees use both Social Media Effectively for Employee Engagement.

ANOVA Test is used for above Hypothesis. The sample size of each group is 5.The data below resulted from measuring the difference in using different social Medias for three different groups. The three social Medias were replicated
5 times.

Level 1	Level 2	Level 3
6.9	8.3	8.0
5.4	6.8	10.5
5.8	7.8	8.1
4.6	9.2	6.9
4.0	6.5	9.3
5.34	7.72	8.56

Means:

The resulting ANOVA table is

Source	SS	DF	MS	F
Treatments	27.897	2	13.949	9.59
Error	17.452	12	1.454	

Total 45.349 14

Correction

Factor 779.041 1

The test statistic is the F value of 9.59.

Since the statistic is much larger than the critical value, we reject the null hypothesis of equal population means and conclude that there is a statistically significant difference among the population means. The p-value for 9.59 is 0.00325, so the test statistic is significant at that level.

4. Findings:

Social Media is one of the business tactics which employees can use to share branded content by their Social Media Profiles. These contents can be divided in tools and track of employee's performance can be kept.The research proved that employees can be involved in

social media for reaching markets. It also shows employees pride and industry expertise. Employees safely share contents about the organization with their followers. Following are the findings which shows that how to get an employee engagement Social Media Strategy.

1. Company can send an Employee Survey - According to Edelman Trust Barometer, 73 % of employees expect themselves to be involved in planning at their jobs. The teams of employees wanted different contents. It shows that the content which employees wanted to share differs according to departments and regions.
2. Company should provide right content to the right employees – When the FMCG Company Sodexo launched Employee Engagement program they started with the executive team and senior leaders. The company designed the content for stakeholder to reach. The Company became successful reaching 7.8 million people. They got high value contract also.
3. Company should provide plenty of content - Initially company can send one or two contents in a day. Employee Engagement contents can better promotes their program. The contents can be informative blog posts, job listings or industry news.
4. Company can run a Social Media contest - Prizescan be a motivator. Incentive Program will be one of the important program,
5. Company can get employees involved in product launches - The creative teams for content preparation are important contributors.When Company's Launch Campaign content is ready to go. It can send and internal announcement. The commitment provides details about the launch and also campaign – specific incentives for the team members is also offered.
6. Company can share Company Swag - Number of Manufacturing Company provides their employees with branded company. Shirts, Jackets, Stickers, Coffee Mugs etc. are used as promotional items. It shows their workplace pride both in real life and on sociallife.

By using above methods Company can share Promotional Contents.Following are the methods for helping engage employees on social media.

1. Amplify: Whenever company's new social content is ready for posting, can add it to Amplify. The contents can be divided into topics so that employees have easy access for the right contents of their choices. Employees can log on easily. All types of Internal Communication can be sending with the help of Amplify.
2. Workplace by Facebook: Workplace by face book is a tool used by many of the world's leading business. It is one of the important communication resource for employee engagement program, the new events and happenings can be shared by this tool.
3. Hot suite Analytics: It is the unique tool by which one can understand employees sharing habits as well as the impact of the content shared.

The importantmetrics to track are as follows:

1. Adoption Rate – The number of active employees divided by the number of employees who signed up.

2. Sign up Rate – The number of employees who signed up divided by the number of employees invited to participate.
3. Share Rate – The number of shares divided by the number of active users
4. Number of Clicks – Total number of clicks from employee engagement content
5. Goal Completions- The total number of employees who took the desired action on the content developed (like signed up for a newsletter, number of people made a purchases etc.)
6. Total Traffic – The total number of visits to your website from the content shared.

5. Conclusion:

Social Media is now a day's important tool for Employee Engagement.Organizations can use Facebook,Integra, What sapetc. as a tool for creating Social Media Strategy.Due to Digitalization Social Media is found to be an important tool in Employee Engagement.

6. References:

1. A Study On Employee Engagement Through Job Satisfaction At The Work Place In Selected CompaniesAuthor's Details: G Purushothaman, K. Krishnamurthy & M.Sakthivel Murgan Research Scholar, Thiruvalluvar University, Serkkadu, Vellore, Tamil Nadu, India Research Supervisor & Guide, Department Of Commerce Rajeswari Vedachalam Government Arts College Chengalpattu, Kanchipuram, Tamil Nadu, India Joint Supervisor Cum Dc Member, Department Of Commerce Retired Principal D.B. Jain College, Thorapakkam Chennai, Tamil Nadu, India Published In: Journal Of Human Resource Management And Development Issn (P): 2277-4742; Issn (E): AppliedVol 6. Issue 1, June 2016, 39-52
2. A Study On Employee Engagement : The Key To Improving Performance Authors Details: N.Usha Deepa Sundari, Phd Scholar, Department Of Management Studies, Vfstr (Deemed To Be University), And Andhra Pradesh, India Dr. P Lakshmi Narayanamma, Associate Professor, Department Of Management Studies, Vfstr (Deemed To Be University), Andhra Pradesh, India Published In: Ijrar March 2020, Volume 7, Issue 1 (E-Issn 2348-1269, P-Issn 2349-5138)
3. Title : Developing And Sustaining Employee Engagement : The Strategic Perspective In Telecom Company Surekha Rana, Priyanka Chopra Published In The United States Of America By Igi Global Business Science Reference (An Imprint Of Igi Global) 701 E. Chocolate Avenue Hershey Pa, Usa 17033 Tel: 717-533-8845 Fax: 717-533-8661 E-Mail: Cust@Igi-Global.Com Web Site: Http://Www.Igi-Global.Com

4. A Study Effectiveness Of Employee Engagement In Automobile Industry During Covid-19.Anil Karuk, Kle Society's Institute Of Management Studies And Research, Hubli Prof Aruna Battur, Assistant Professor, Kle Society's Institute Of Management Studies And Research, Hubli Isbn :978-93-83302-47-5. Published In Sdimd International E Conference On Adopting To The New Business Normal – The Way Ahead December 3-4, 2020, Mysuru, India

IJRAR.ORG E-ISSN: 2348-1269, P-ISSN: 2349-5138

INTERNATIONAL JOURNAL OF RESEARCH AND ANALYTICAL REVIEWS (IJRAR) | IJRAR.ORG

An International Open Access, Peer-reviewed, Refereed Journal

EFFECTIVE METHODS OF TEACHING AND LEARNING SECOND LANGUAGE

Asst. Prof. Atul S. Jadhav

(SNBP College of Arts, Commerce, Science and Management Studies, Morewadi, Pimpri, Pune)

Abstract:

It is very importance to learn second language in the competitive world. In India has numerous state. Every state has his own language, that language is known as first language. First language is also known as mother tongue. In India English is the second language. English is also known as international language because all international trends are discussed in English language. In the world nearby 400 million people speak English language. This paper explains effective methods for learning English as second language. These methods are: Grammar-translation method, Audio-lingual method, direct method, The Communicative Language Teaching (CLT) method, Task-Based Language Teaching (TBLT) method, Content-Based Language Teaching (CBLT), The Natural Approach method, The Silent Way method, The Suggestopedia method and Technology-Enhanced method. These all methods definitely help you to learn second language as English.

Key words:

Method- systematic procedure, second language- a language which is not their native language, Audio-lingual- emphasizes the teaching of listening and speaking, Suggestopedia- suggestion and pedagogy.

Introduction:

Language plays a vital role in human life. Language means a system of communication in which a person shares his/her thoughts, ideas, and feeling in verbal and nonverbal way. Language has two types' first language and second language. First language means the language is spoken by birth by a person. It's also called mother tongue. If you want to teach and learn second language, you must know a first language properly. If you do not know first language properly, it is very complicated to teach and learn second language. Second language means the language learn on the basis of first language. Teaching and learning language this process is going on from ancient time still now and onward. Some of the important methods are founded to teach and learn second language. This methods are discussed as below.

Methods of teaching and learning 2nd language:

1. The Grammar Translation method:

The Grammar translation method is traditional and old method to teach language on the basis of grammar's rules and regulations. Sentences are translated between 2nd language and 1st language. Mostly this method is used over all world. Most of the 2nd language learner follows this method to learn 2nd language.

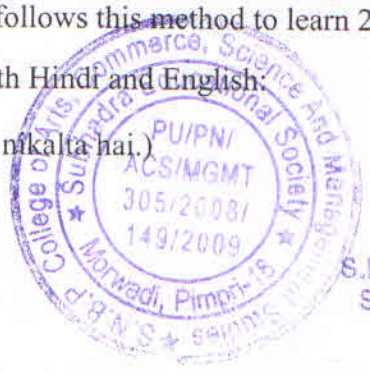
For example: Grammar translation method works with Hindi and English.

Sentence: "रात को चाँद निकलता है।" (Raat ko chand nikalta hai.)

Translation: The moon rises at night.

ASJadh

Atul Jadhav



PRINCIPAL
Subhadra Educational Society,
S.N.B.P. College of Arts, Commerce
Science And Management Studies
Morwadi, Pune-411018

2. The Direct Method:

Direct method is a language teaching and learning method to teach a language directly. This method does not take help of 1st language to teach or learn second language .this method inspire Lerner to think and communicate direct in 2nd language .It relies visual aids, objects and gestures.

For example:

The teacher starts the class by greeting the students in English and encouraging them to respond
Teacher: "Good morning, class! How are you today?"
Students: "Good morning, teacher! We are fine, thank you."
Teacher: "This is a chair. Repeat after me: chair."
Students: "Chair."

3. The Audio-lingual method:

The audio- lingual method is also known as Aural-oral method. This method become very popular in mid twenty century in America. This method is developed for speaking and listening skills through repetition of music or sentences or drills for practice. Major focus of this method is oral communication and listening skills. Repeat audio sentences and try to speak like audio as well as follow proper pronunciation pattern. It helps us to develop Listening skills, automatic responses of the language pattern, understanding of the words and proper pronunciation of the language. This method uses audio material like tapes and recordings.

For example: Teaching Spanish using the Audio-Lingual Method
Teacher: "Repeat after me: casa - caza, casa - caza, casa - caza."
"Casa" (house) and "caza" (hunt)

4. The Communicative Language Teaching (CLT) method:

The Communicative Language Teaching (CLT) method is primarily focus on communication in 2nd language. The main aim of the method is developing learner's ability to use 2nd language in their day to day life.it focuses on real life situations, meaningful interaction and practical use of 2nd language.it encourages learner to actively participate in the learning process.

For example: The teacher introduces a real-life context, such as ordering food in a restaurant, to set the scene for the language learning activity.
Waiter: "Hello, what can I get for you today?"
Student: "Good afternoon, could you recommend any vegetarian dishes on the menu?"

5. Task-Based Language Teaching (TBLT) method:

Task-Based Language Teaching (TBLT) method focuses on using a task of communication and problem solving for teaching and learning language. Some of the task is given by teacher to students for development of the 2nd language .it does not focus on teaching grammar and vocabulary .It develops learner's language skills through real life task.

For example: Task: Plan a Weekend Trip
Teacher: "You are going to plan a weekend trip to a nearby city.
Student A: "I think we should go to City Pune. It's known for its historical landmarks."
Student B: "That sounds interesting, but I prefer City Goa because it has beautiful beaches."

6. Content-Based Language Teaching (CBLT) method:

Content-Based Language Teaching method is inspired teaching and learning 2nd language on the basis of academic or subject specific content. The primary aim of the method is to learn 2nd language and subject knowledge at a time. Most of the 2nd language learner learn this method while learning 2nd language in

For example: Teaching Science in English using Content-Based Language Teaching
Subject: Science
Language: English [for non-native English speakers]
Teacher: "Today, we will be learning about the solar system. It consists of the sun, planets, and other celestial bodies. Let's start by discussing the names of the planets and their characteristics."
The teacher identifies important science-related vocabulary in the text and language structures needed to understand the content.

7. The Natural Approach method:

The Natural Approach method is the method which is learnt by child to 1st language as a mother tongue. The aim of this method is to create low anxiety, immersive learning environment where learner absorbs the language through meaningful context and exposure. It avoids the grammar instruction.it means that learner learns free and fearless language. Mostly it focuses on understanding and comprehension.

For example: Teaching English to Beginners using the Natural Approach
The teacher starts with Total Physical Response activities,
Teacher: "Stand up."
(Students stand up)
Teacher: "Sit down."
(Students sit down)

8. The Silent Way method:

It is language teaching and learning method developed by caleb gattegno in mid twenty. This method is emphasized the use of silence to teach and learn the language.it encourages to the learner to take active participation in the learning process.it focuses on discover something on the basis of particular visible object and the solving of the problems which is shown by the teacher to the students. This method uses physical objects and colours code materials to promote learners automatically.

For example: Teaching Colours in English using the Silent Way method.
Teacher introduces colours. Objects represent different colours, such as red, blue, yellow, and green.

9. The Suggestopedia method:

This is the language teaching and learning method developed by Bulgarian educator georgi Lozanov in 1070s.Anyone can learn any language whenever he/she is free from anxiety, fear. It also means that learner must be relax and positive with learning atmosphere. This method creates positive environment to the learner to learn language .It is used various techniques like music, art dramatic play to create free and positive atmosphere for learners.

For example: The teacher applies positive suggestion techniques to build confidence. Positive affirmations are used to create a belief that learning the language is easy and enjoyable.

Teacher: "You are all talented language learners. English is easy for you, and you can remember new words effortlessly."

10. Technology-Enhanced method:

This method involves various digital technologies to support teaching and learning language. Now a days so many applications are available on internet to learn language as spoken English applications for speaking practices online, dictionaries are available for find out meaning of the word and proper pronunciation of the words. Virtual language learning platforms are available .It gives opportunity to the learners to develop speaking, listening and understanding skills of language. Teachers also provide
Online links, you tubes links and websites links for develop learners reading, listening and comprehension

For example: Oxford Dictionary online, YouTube lecture on language and website links for learning language.

Conclusion:

All methods discussed above are the methods of teaching and learning language. Each and every method has its own values and importance .we cannot say that this method is best and that is worst. Every method is useful on that situation.it is depends on learners stage. Whenever we are learning any 2nd language, we require all this methods for teaching and learning language. We can't teach and learn language to follow a method of teaching and learning language. We require the help of all methods to teach and learn language successfully.

References:

[1] Jack c. Richards and Theodore S.Rodgers, Approaches and methods in language teaching (Second Edition), Cambridge Language teaching library.

[2] Jack C. Richards and Willy A. renandya, Methodology in language teaching an anthology of current practice, Cambridge university press.

[3] Liu Qing, Shi Jin fang, an analysis of language teaching approaches and methods effectiveness and weakness, Us-china education review, ISSN 1548-6613, USA

[4] Wikipedia.org.

Certificate of Publication

INTERNATIONAL JOURNAL OF RESEARCH AND ANALYTICAL REVIEWS (IJRAR) | IJRAR.ORG

An International Open Access, Peer-reviewed, Refereed Journal

E-ISSN: 2348-1269, P-ISSN: 2349-5138

The Board of

International Journal of Research and Analytical Reviews (IJRAR)

Is hereby awarding this certificate to

Asst.Prof.Atul S. Jadhav

In recognition of the publication of the paper entitled

EFFECTIVE METHODS OF TEACHING AND LEARNING SECOND LANGUAGE

Published In IJRAR (www.ijrar.org) UGC Approved - Journal No : 43602 & 7.17 Impact Factor

Volume 10 Issue 3 July 2023, Date of Publication: 29-July-2023

PAPER ID : IJRAR23C1766

Registration ID : 271492

R.B.Joshi

EDITOR IN CHIEF

International Journal for Multidisciplinary Research (IJFMR)
E-ISSN: 2582-2160 ● Website: www.ijfmr.com ● Email: editor@ijfmr.com

Opportunities And Challenges of Nep 2020

Mr. Atul S. Jadhav

Assistant Professor, (SNBP College of Arts, Commerce, Science and management Studies morwadi, pimpri-18)

Abstract:
Education is the base of all development. It has been starting from ancient time but required changes have been doing still now. It is required because changeability is the low of nature. If we cannot change, nature will destroy us. It is also apply in the education. Indian Government has adopted the National Education Policy 2020 on 29th July 2020.the aim of the NEP 2020 is revolution in education system, which help to the students to sustain in the 21st century and overcome the challenges in the life and develop the nation. In this paper I discuss about challenges and opportunities of the National Education Policy 2020.

Keywords: NEP 2020: National Education Policy 2020.
Holistic Education: emphasizes the development of the person (Intellectually, Emotionally, Physically, and spiritually).
SDG: Sustainable Development Goal.
Vocational Education: prepares people to a skilled.

Introduction:
Indian education follows knowledge (Gyan), Wisdom (pragya) and truth (satya).the aim of education to achieve human potential, development of the society, Promotion of the national development, economic growth, social justice, equality, scientific advancement, national integrity and cultural preservation. In the Ancient India had world class educational multidisciplinary institutes as Takshashila, Nalanda, Vikramshila & Vallabhi etc. Overall world people came to learn. Indian has adopted SDG (Sustainable Development Goal) number four that is "Ensure inclusive & equitable quality education & promote lifelong learning opportunities for all" to achieve still 2030. Education policy 1983 is changed as NEP 2020 because it is changing time to adopt advancement in the education research, critical thinking and required demand of the job market. NEP has promoted holistic development, critical thinking and creativity in the learners. This new education policy closes the cap between current position of the learning and what is required to learn in the upcoming decade. It has also changed the 10+2 pattern, now it is 5+3+3+4. It means. Education starts at age of 3.

OPPORTUNITIES OF NEP 2020:
Holistic Education: NEP 2020 emphasizes on overall development of the person as intellectually, emotionally, physically and spiritually. Traditional education focuses on theoretical learning. NEP 2020 is not only focus theoretically but also practical development of the students. New education policy focuses individual development of the student, who solves various challenges in the life rather than focusing on the academic content only For Instance: In the new education policy science teacher teaches the scientific concept while learning of science theoretical concept as well as practical demo or experiment

Ass. Prof.
Atul Jadhav

PRINCIPAL
Subhadra Educational Society,
S.N.B.P. College of Arts, Commerce,

of the concept. While doing practical students think creative, probability and assumption of the experiment. It leads the creativity of the person. It means innovative ideas come out from new researcher.it help to develop our wellbeing.

Vocational Education: Vocational education means the education, which prepares the skills which is required in the market as art as artisan, trade as trade person and work as technician. This kind of education not only gives us employability and job opportunities but also individual development of the person gainful skills which helps us to start self-employment and gives employment opportunity to others. NEP 2020 aims to empower students to choice their career and choose the field, which they want. Vocational education helps them to choice their career and works on it. Vocational education not only reduces the unemployment but also develop the Indian economics development. For Instance: Ram is qualified Batchelor of commerce. He found out job in the bank .Bank interview panel suggested him to complete the Skills development Course to develop your skills. He completes and works in the bank properly.

Technology involvement: In Ancient education we could not use technology because there were not proper development of the technology. Everyone used to use textbooks and reference books only. Now a days Technology involvement is an opportunity to the all students because NEP 2020 allows to use technology in the education. It means students can understand everything about academic and general content as well as get free and easy access of the online content anywhere. For Instance: YouTube is an online platform which provides video content related all topics which you want to know. Zoom meeting app is online virtual meeting app which helps to join from any corner of the world and it can be recorded. Wikipedia is also very authentic platform of the content or information. Language laboratory helps students to learn proper language, pronunciation, vocabulary and grammar.so many online applications are there to learn new skills. NEP 2020 focuses on technological involvement in the education. Audio-Visual helps students to better understanding of the content. It leads independent learning, creativity and critical thinking among students.

Flexibility and Multidisciplinary: This education policy focuses on flexibility and multidisciplinarity in the education. NEP provides the equal opportunity to all area of the nation. Flexibility allows to the students to choose subject according their interests and capacity of the students. Multidisciplinary allows to the students to choose the subject from any course. For Instance: A science student learns all science subjects but he is interested in Arts then he can choose a subject from Arts department. He has interest in the subject that is why he is working properly and doing best in it. It generates creative, innovative and skills full personalities. Now days we are facing complex problems form various fields. It requires the multidisciplinary critical thinking & creative approach to solve the complex problem.

Critical Thinking: In the 21st century we have needed to think critical because so many complex problems we are facing as Environment, Social, Economic and Disease (medical) issues. NEP 2020 emphasises on critical thinking and problem solving abilities among students. Critical thinking involves analysing, evaluating and synthesizing information to take decision. NEP 2020 gives opportunity to the students to think critical and implement in the life. For Instance: In science class teacher discusses about climate change theoretically. Students memorize the concepts and related to the climate change. Instead of this teacher encourages to the students to think critically and collect the data of the climate change and their

issues, causes and effects. They might analyse the data, assumption questionnaires', observation and graphs. Finally they come to best solution of the climate change. This kind of approach changes the independence thinking power, best opinion and meaningful discussion on any topic.

Research and Innovation: NEP 2020 gives an opportunity for the promotion of the research and innovation.it is emphasizes on multidisciplinary approach, flexible atmosphere and sufficient funding for the research and innovation. NEP encourages to establish strong research centres. Universities convert into research hub. For instance: An x university starts solar energy research hub then interested research scholar and research students participate in it. NEP encourages to collaborate with government, industry and academic institutes and works on small practical projects, which government, industries and academic institutes are facing. This is good opportunity to develop yourself, find out innovative ideas and developing economic growth of the nation.

CHALLENGES OF NEP 2020:

Implementation: Implementation is the main challenge of the NEP 2020.traditional educational policy focuses on theoretical approach but NEP 2020 focuses on experimental and holistic learning. So it is quite difficult to be theoretical to experimental and holistic. Those teachers followed the traditional teaching methods, they are facing difficulties to change new teaching methods in NEP 2020.NEP tells us to run activities for the students and focuses on maximum practical activities. It is difficult the previous teachers they are habitual with traditional teaching methods. Now days Technology involves in the education .Audio-Visual aid helps students' Maximum understanding of the topic. Mostly teacher follows PPT (Power Point Presentation) for audio-visual. If we want to make power point presentation then we have needed to know basic and advance knowledge of the word, PowerPoint and excel, without it we cannot make PPT. It simply means that we must have knowledge of the technology. Traditional teachers do not have that kind of knowledge to adopt NEP 2020.they are facing challenging to adopt NEP 2020.NEP gives the choice of the student to choose the subject from multidisciplinary field. It is very difficult task to implement because For Instance: Science student chooses the arts subject. It is difficult to maintain record, continuous assessment and running the activities. Some of rural Areas are not develop properly. It means that some villages face the range problem that is why they cannot apply technology properly.it also means that they only follow the traditional methods of the teaching.

Infrastructure and Resources: Now day's private schools and colleges are opened in Indian. Everyone wants quality education .if we want quality education then institute provides us adequate infrastructure, sufficient resources, qualified and trained teachers. It is challenging task in the rural or village or remote and economically poor area. For Instance: In remote area students are facing lots of trouble related to infrastructure and recourses as computer laboratory and required infrastructure, (only few computers are available in the laboratory.it is not sufficient to student and students ratio as well as lack of internet access).Every school and college has a library .library is soul of institute but lack of text book, reference books, journals and newspapers (they have book but outdated and old. They have only few reference books as countable figure. They have only 2 newspaper 1 in regional language and 1 in English language and there is digital access of the library .It means that lack of infrastructure and resources in library. NEP 2020 encourages to requite qualified teacher and innovative teaching techniques but it is not followed (non-qualified teachers are appointed and traditional teaching methods are followed) in the remote and semi-

urban areas. Few digital classrooms are available but it is not sufficient to all students. Infrastructure and Resources are the challenging part but it transforms the bridge gaps between traditional educations to inclusive and modern learning.

Multiple Languages: NEP 2020 emphasizes on regional language as the medium of the instruction up to certain level but after certain level students learns second language and it is very difficult to learn second language because students only know regional language. He/she gets more time to learn second language. For Instance: Abhay learns in his regional Marathi language in certain level of education, after certain level he has mandatory English language subject. It is quite complicated to learn English language due to regional atmosphere, lack of English listening and lack of practises. Simply it means that multiple language is a kind of challenging task to the students.

Teacher Training and Capacity Building: NEP 2020 emphasises teacher training and capability building to develop the quality of education. It expects to adopt new teaching methodologies and technologies. Teacher has given training workshop to learn modern teaching techniques, personal learning and developing digital tools for teaching but it is challenging task to implement, because those teachers are teaching from traditional teaching methods in their teaching, they can face the trouble to adopt the new technology as Zoom application, Power point presentation ,teaching through smart classroom etc. For Instance: Ram is a teacher, who teaches traditional teaching methods in his teaching. Nowadays we accept the NEP 2020.it means Ram has needed to learn new teaching methods and technology to teach to the students. He joint workshop but did not learn anything because he seems it is difficult to learn due to lack of technological awareness. Finally he follows his traditional methods in his lecture.

Funding: Funding is essential to implementation of the NEP 2020 effectively, which requires the updated and sufficient infrastructure, improving teachers training and digital learning tool to all level in education. Due to the lack of funding educational institute cannot implement NEP 2020 impressively. For Instance: NEP requires Digital tools, Digital class rooms, Internet connection and computers. A X institute implements NEP effectively then they buy all required infrastructure and digital tools but X institutes does not ready to pay full amount of the instrument and infrastructure that is why X institute buys 50 % infrastructure and digital tools. Most of the time it is happening in rural and semi urban areas.it means that funding is the challenge to implement NEP 2020.

Conclusion: NEP 2020 has taken a step towards the transforming India's educational system. It has given lots of opportunities to the students and try to overcome the problems and challenges of previous education policy. The policy focuses on holistic education, critical thinking, research and innovation and practical learning.it gives the knowledge about solving the complex problems, which arises in the 21st century. The involvement of the technology's aim is to access quality education. Vocational education provides skilful people. NEP 2020 gives numerous opportunities, successful implementation faces the challenges as infrastructure development, teacher training, funding etc. For the implementation of the NEP 2020, we require the collaboration among stakeholders, government, educator, institutes and communities then it will be implemented effectively.

Reference:

1. National Educational policy 2020 - India, Ministry of Education.
2. www.education.gov.in
3. https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.pdf
4. https://en.wikipedia.org/wiki/National_Education_Policy_2020
5. https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1847066
6. Dr. Sonali P Kumre, NEP 2020 - Opportunities and Challenges, International Journal for Multidisciplinary Research.
7. Dr. P. Narender Reddy, National Education Policy 2020 - Challenges and Opportunities on the Educational System, International Journal of Science and Research.
8. https://theedupress.com/2022/05/articles/school-education-articles/national-education-policy-nep-2020-opportunities-n-way-forward/

International Journal For Multidisciplinary Research

An International Open Access Peer Reviewed Journal E-ISSN: 2582-2160

Certificate of Publication

The editorial board of IJFMR is hereby awarding the certificate of publication to

Atul S.Jadhav

in recognition of publication of paper titled

Opportunities and Challenges of NEP 2020

Published In: Volume 5, Issue 5 (September-October 2023)

Paper Id: 5917

Editor / Publisher
IJFMR

IJRAR.ORG E-ISSN: 2348-1269, P-ISSN: 2349-5138

INTERNATIONAL JOURNAL OF RESEARCH AND ANALYTICAL REVIEWS (IJRAR) | IJRAR.ORG

An International Open Access, Peer-reviewed, Refereed Journal

Digital Library Practice in Under Graduate Colleges

Mr. Viraj Mahangare
Librarian,

Prof. Amol Bade
Assistant Professor

SNBP College of Arts, Commerce,
Science & Management Studies, Pimpri-18

Abstract*—This paper is intended to understand the necessity of digital libraries to be applied in Under Graduate Colleges. It's been very much important to study this in concern of Indian Undergraduate Courses where digital library plays the role of soul in education filed in the modern technically advanced age. The study carries close study of literature review from some empirical study resources. The fast growing technological advancements in all fields has given a birth to the digital platform for the library feasible and reader's friendly. As a soul of colleges and educational institutes, digital library provides easy learning resources for educational academics advantages over conventional libraries. The present paper closely analyses the best usage/practice of this phenomenon for the undergraduate students in India in the present era.*

Keywords- ***Digital Library-*** *A collection of information resources in electronic format*
Empirical- *Based on Observation* ***Anxiety-*** *A feeling of uneasiness*

1.1 Introduction and Theoretical Framework:

The present study aims to analyze Digital library, advantages and disadvantages of digital library, use and importance of digital library for the undergraduate students in India.

Before studying digital library it's been very important to discuss about the concept of "anxiety" of undergraduate students towards the traditional libraries is a psychological and describes a fear or unease student's experience in a library. The idea of "library anxiety" has been put in front around since the 1970s. Library anxiety is a commonly observed factor among undergraduate students characterized by feelings of negative emotions, including uneasiness, self-defeating thoughts, fear, tension, physical and mental stress, ruminations and a state of inferiority complex and less skill to find necessary resources. Fraser and Bartlett (2018) argue that undergraduate students often experience discomfort or anxious feelings when interacting with the library and its resources and services and library staff. According to Jiao & Onwuegbuzie (1999) and Onwuegbuzie, Jiao & Bostick (2004), library anxiety occurs in some special circumstances or contexts; therefore, students experience library anxiety is not anxious outside of the library.

To overcome on this "anxiety" the term Digital Library helps. The term *'Digital library'* is a collection of digital or electronic objects that books, articles, journals, research papers, multimedia materials, and other types of content along with means for organizing, storing, and retrieving the files and media contained in the library collection. Digital libraries can have vast size and scope which may be maintained and stored by institutions which can be accessed remotely through computer networks like internet. The library is the cardinal and central part of interest in any educational institute. In the colleges (affiliated to Universities) are provided the curriculum by concerned universities according to the needs of the current hour. Due to this many times many colleges fail to update their traditional libraries. While updating this many major issues do arise such as of infrastructure, Finance, Manpower and students habits (techno-savvy) but the truth cannot be denied of the traditional library which is the bridge between the teaching and learning in physical way. The major part to explore is today's students do spend maximum duration on the internet searching for the material required for their study which may not be authentic and students are not ready to sit in the library and read

V. Mahangare.
Mr. Viraj Mahangare

PRINCIPAL
Subhadra Educational Society,
S.N.B.P. College of Arts, Commerce
Science And Management Studies
Morwadi, Pune-411018

hour and hour reading the books in chunks. Considering this the digital library plays important role in a way which is provided to students.

1.2 Digital Library Merits & Demerits in Education:

There are many advantages of digital libraries in the current era which are transformative and revolutionary in the process of transforming information to the end with their wealth of digital resources available in the college libraries. This digital libraries offer convenience, accessibility, and efficiency with the authenticity of the information. Students can explore diverse extended materials from their places where they stay or from any place they want to access with the help of internet facility, beyond the physical boundaries and time constraints of physical presence in the traditional libraries. Thus this saves valuable time and effort of the students that they can utilize for other skills gaining. Rather, digital libraries give a scope for knowledge sharing and accessing, which fosters an interconnected homely community of learners and researchers. This is the age of digital libraries, has become evident that they have become essential tools in our pursuit of knowledge, opening up new horizons and expanding the boundaries of new learning.

On the other hand there are certain drawbacks also in concern of undergraduate students that they must know the proper potential and skills for surfing for the information digitally. It's also the thing that the digital formats may limit access to certain resources that are not available in digital form or have not been transformed into digital data. Students if are not aware about the fake data which is also available in immense number digital form may lead them to the failure in getting knowledge.

1.3 Digital Library transformation:

The students cannot acquire knowledge and develop skills only by attending classes in colleges regularly. In addition to this they need access and use the libraries to enhance their knowledge and the learning experiences. Many colleges and universities have been taken initiatives in digitizing their existing libraries to enhance the learning experience of students in a remote and distributed environment which has found to be successful attempt in the knowledge and skill enhancement of students.

Digital library plays an important role for student's educational growth. Librarians play role of educators that procure e-content and give instruction on how to assess and use resources properly. Therefore Librarians required preparing or scrutinizing or providing e-materials which must be relevant, supportive, and useful to the students. This is because the students most of the times cannot find or access the physical material required, in a situations students lose their interest in the physical library. As like the physical library issues some of the factors which impact how students perceive online materials with slow download speed, difficulty reading online due to other technology options such as games, a distraction from social media, and emails. Through the analysis of this it's been necessary make better library experiences with the library and the library's resources, college librarians and teachers can do better in promoting online student learning with e–content emphasize in classrooms or out of classrooms. Students believe in their teachers so they shall start believing the resource cited valuable by them. Wu and Chen (2012) found graduate students often use library resources (e-content) and that college graduate students think that the library resources are important for their course/classwork. E-Library shall provide the e-content resources that explore topics, present information literacy in a new way, or support an assignment can be perceived as valuable to students in their research process on one click.

1.4 Conclusion:

Digital Library is very important as Student perceptions might be influenced by when an online library resource is introduced within a course or program. Graduate students do want access to the online library and content to ensure that they remain updated in the field.

References-

1. Bharat Kumar, Rahul Kumar,(2020) 'Digital Library', International Journal of Engineering Research & Technology (IJERT), ISSN: 2278-0181, Vol. 9 Issue 08.

2. Arms, W.,(2000) 'Digital libraries', Cambridge, MA, MIT Press.

3. https://en.wikipedia.org/wiki/Digital_library,27th July, 2023, T-12.28 pm.

4. Kumar, M., (2016) 'Digital libraries: Definitions, issues, and challenges'.

Certificate of Publication

INTERNATIONAL JOURNAL OF RESEARCH AND ANALYTICAL REVIEWS (IJRAR) | IJRAR.ORG

An International Open Access, Peer-reviewed, Refereed Journal

E-ISSN: 2348-1269, P-ISSN: 2349-5138

The Board of

International Journal of Research and Analytical Reviews (IJRAR)

Is hereby awarding this certificate to

Mr. Viraj Mahangare

In recognition of the publication of the paper entitled

DIGITAL LIBRARY PRACTICE IN UNDER GRADUATE COLLEGES

Published In IJRAR (www.ijrar.org) UGC Approved - Journal No : 43602 & 7.17 Impact Factor

Volume 10 Issue 3 July 2023, Date of Publication: 27-July-2023

PAPER ID : IJRAR23C1706

Registration ID : 271412

R.B.Joshi

EDITOR IN CHIEF

UGC and ISSN Approved - Scholarly open access journals, Peer-reviewed, and Refereed Journals, Impact factor 7.17 (Calculate by google scholar and Semantic Scholar | AI-Powered Research Tool) , Multidisciplinary, Monthly Journal

INTERNATIONAL JOURNAL OF RESEARCH AND ANALYTICAL REVIEWS | IJRAR

An International Scholarly, Open Access, Multi-disciplinary, Indexed Journal

Website: www.ijrar.org | Email: editor@ijrar.org | ESTD: 2014

Manage By: IJPUBLICATION Website: www.ijrar.org | Email ID: editor@ijrar.org

IJRAR | E-ISSN: 2348-1269, P-ISSN: 2349-5138

43