# PRERANA

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Data Visualization in the Digital Age Dr. T. Suganthalakshmi & Dr. M. Saravanakumar

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# PRERANA: Journal of Management Thought and Practice

PRERANA in Sanskrit means hope and inspiration. The primary objective of PRERANA journal is to enhance the standard of management education by drawing from conceptual and empirical research based articles reflecting current industry practices. PRERANA shall include contributions from eminent members of the academia and sharing of practices by experts from industry. The Journal will also contain book reviews, editorial abstracts and executive summaries of recent publications in management.

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#### FROM THE EDITOR (S)

It gives us immense pleasure to place before you the Volume 16, Issue-1, March 2024 issue of '**PRERANA:** Journal of Management Thought and Practice.' The objective of **PRERANA** is to disseminate contemporary developments in the field of management in the form of empirical research that tests, extends or builds management theory and contributes to management practice. PRERANA encourages manuscripts that present strong empirical and theoretical contributions to the management field. Preference is given to submissions that test, extend, or build strong theoretical frameworks. PRERANA's international and multi-disciplinary review team ensures maintenance of standards of excellence with regard to the quality of contents. This edition contains six research articles on Data Visualization, Electronic Word of Mouth, Occupational health and Safety Management, Exports and Imports, Entrepreneurship Education and Competition-profitability relationship.

In the first research article on, "Data Visualization in the Digital Age," Dr. T. Suganthalakshmi and Dr. M. Saravanakumar delve into the pivotal role of data visualization (DV) in modern society. They explore its cognitive aspects and impact on decision-making across various sectors like healthcare, business, scientific research, and academia. The article illustrates concrete examples of DV applications: from analyzing sales trends in business to facilitating data-driven discoveries in scientific research. Highlighting diverse tools and software for DV, the study underscores its utility and versatility in enhancing communication, analysis, and decision-making processes. Overall, it emphasizes DV's significance as a potent tool in today's data-centric landscape.

Debadeepti Jagaty, Dr. Umakanta Dash, and Dr. Puspalata Mahapatra, in their article "The Effect of eWOM on Purchase Intention of Buyers: A Systematic Review of Literature," address the escalating competition among product and service providers in the era of globalization. With an abundance of choices available to consumers, expressing purchase intentions amidst promises of high brand quality and features becomes daunting. However, electronic word-of-mouth (eWOM), including customer reviews and expert opinions, significantly shapes consumer attitudes and decisions. The study synthesizes previous literature to examine eWOM's impact on various buying characteristics, aiming to construct a conceptual framework influencing 21<sup>st</sup> century consumer purchasing decisions.

AYOOLA, Olorunfemi Joseph, and AUN, Isaac Iortimbir's study on "Effect of Occupational Health and Safety Management on Workers' Productivity" delves into the crucial link between workplace safety and employee performance, with a focus on the University of Ilorin Teaching Hospital, Nigeria. Through meticulous research, it is established that occupational health and safety measures significantly impact workers' productivity. The findings underscore the imperative for hospitals, and indeed all workplaces, to prioritize staff safety, thereby enhancing overall effectiveness. This study serves as a poignant reminder of the intrinsic connection between employee well-being and organizational success, urging for proactive measures to ensure a safe and conducive work environment.

In their comprehensive analysis, Benjamin Justin, Nisha M, and Dr. Shalini shed light on India's remarkable economic journey, particularly focusing on its foreign trade dynamics from 2009 to 2023. Despite challenges, India's foreign trade has surged, with a 323.05% increase, marking a significant contribution to the nation's GDP. The study underscores the pivotal role of economic liberalization in transforming India's economy, facilitating increased trade and integration into the global market. While India's export and import volumes have grown substantially, there remains room for improvement in enhancing its global export share. This analysis serves as a testament to India's evolving economic landscape and the imperative for continued efforts towards global economic engagement.

In her insightful article, Pavithra explores the transformative impact of entrepreneurship education on India's economic growth. By equipping individuals with essential managerial skills and fostering an understanding of business intricacies, this education model holds immense potential in reducing unemployment rates. With a focus on qualitative research, Pavithra addresses a critical research gap, advocating for the integration of entrepreneurship education into rural areas through national education policies. This study not only highlights the significance of entrepreneurial skills in fostering job creation but also underscores the imperative of inclusive educational strategies for driving holistic economic development.

In their study, Tarun Kumar Ray and Abhijit Sinha probe the intricate relationship between competition and profitability within the Indian banking sector. As a result of financial sector reforms in the 1990s, aimed at fostering competition, the landscape saw significant transformations with the entry of private and foreign banks. Analyzing data from 2013 to 2022, the study unveils a compelling correlation: heightened competition correlates strongly with banking profitability. By employing rigorous methodologies, the research sheds light on the pivotal role of competition dynamics in shaping the financial performance of Indian banks, offering valuable insights for policymakers and industry stakeholders alike.

We thank all the authors for their contributions towards *PRERANA* – Volume 16, Issue 1, March 2024.

We look forward for novel, insightful and crafted conceptual work that challenges conventional wisdom concerning all aspects of organizations from academicians, bureaucrats and business executives for publishing in *PRERANA*.

Dr P Sadhasivam – Chief Editor
Dr S Kavitha – Associate Editor

#### DATA VISUALIZATION IN THE DIGITAL AGE

Dr. T. Suganthalakshmi<sup>1</sup> and Dr. M. Saravanakumar<sup>2</sup>

#### ABSTRACT

This study emphasizes the crucial role of data visualization (DV) in contemporary society, underscoring its significance in facilitating effective communication and interpretation of data across diverse sectors. It deals into the cognitive aspects of DV and evaluates its impact on decision-making processes. Furthermore, it examines various DV techniques and their applications in key domains such as healthcare, business management, scientific research, and academia.

Concrete examples showcasing the application of DV across different sectors are provided. In business management, for instance, DV can aid in analyzing sales trends, financial performance, and market insights, enabling informed decisionmaking. In scientific research, DV plays a pivotal role in representing complex data sets, facilitating data-driven discoveries and insights. In journalism and media, DV can enhance storytelling by presenting data in engaging and easily understandable formats. In politics and government management, DV enables policymakers to visualize trends, patterns, and public opinion, thus informing policy decisions effectively.

Moreover, the study highlights various tools and software commonly utilized for DV purposes. These tools range from simple graphing software to more sophisticated data visualization platforms, catering to diverse user needs and preferences.

Overall, the study underscores the utility and versatility of data visualization across multiple sectors, emphasizing its role as a powerful tool for communication, analysis, and decision-making in today's data-driven world.

Keywords: Data Visualization Tools; Information Society; Data Visualization

#### INTRODUCTION

The introduction highlights the revolution caused by emerging technologies in the consumption and processing of information, permeating all areas of knowledge. This revolution has led to what is called the "datification" of society, where data management through technological tools is fundamental for making informed decisions in various aspects of life<sup>(1)</sup>.

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In this context, data visualization (DV) emerges as a crucial discipline, combining statistics with design to effectively represent and reproduce data structures. In a society where technologies such as data mining, Big Data, the Internet of Things, and artificial intelligence are increasingly prevalent, DV becomes indispensable for presenting large volumes of data in a synthetic and attractive manner.

It is suggested that the ability to understand and create data visualizations is a fundamental skill for information users in the current era, along with data literacy. However, it is acknowledged that there are still deficiencies in textual, mathematical, and visual literacy skills, as well as in the frameworks of data visualization literacy <sup>(2)</sup>.

With the aim of reducing this gap in data visualization literacy and maximizing the benefits offered by this discipline, the article aims to explore and describe the importance of data visualization in the information society.

#### LITERATURE REVIEW

A bibliographic review on data visualization in the information society was undertaken. Research articles from the Scopus, SciELO, PubMed, and Google Scholar databases were assessed. The search utilized various terms: 'data visualization'; 'data visualization in the information society'; 'data visualization techniques'; 'data visualization applications'. Additionally, manual searches were conducted to include other relevant sources of information.

The review aimed to incorporate sources pertinent to the topic to fulfill the specified objective. Ultimately, a total of 32 information sources were compiled, comprising scientific articles, journalistic pieces, books, and informative websites, predominantly spanning the period from 2019 to 2023.

#### DEVELOPMENT

Data visualization (DV) has emerged as a significant research field in the 21st century, with substantial impact across all disciplines and numerous everyday activities. DV enables the graphical and synthetic representation of data, facilitating interpretation and the drawing of conclusions. Visual representations of data are more comprehensible than textual information because the human brain processes graphic images more easily than tables of numerical text.<sup>(3)</sup>

DV involves representing data to visualize elements that would otherwise have been imperceptible when analyzing the data source. It can unveil associations among areas that are sufficiently distant from the original data, allowing for the detection of previously hidden patterns in the data.<sup>(4)</sup>

Presenting information in standardized forms simplifies the comparison and grouping of data, facilitates the identification of dependencies or trends, and pinpoints data points that deviate from consistent general patterns. Consequently, the development of data visualization methods inherently possesses a cognitive character.

The use of data visualization techniques has diversified, gaining prominence in fields such as cartography, demography, and data sciences, spanning from research to management. Combining techniques such as data mining, semantic web, linked open data, and other advanced visualization methods enables access to and the appreciation of scientific knowledge.<sup>(18)</sup>

#### DATA VISUALIZATION TECHNIQUES

There are various techniques and approaches for data visualization that allow users to explore, analyze, and better understand data. Some of these techniques include:

*Smart automatic charts:* these charts automatically generate the best image based on the provided data, although they may not always reflect exactly the visualization the user has in mind.

*Correlation matrices:* show the correlation between multiple sets of data that are constantly updated.

*Network diagrams:* represent the relationships and links of complex data in the form of nodes and edges.

*Interactive visualizations:* allow the user to explore and manipulate data through actions such as filtering, sorting, highlighting, zooming, etc.

*Real-time visualizations:* display data that is automatically updated according to the data source, such as sensors, social networks, etc.

*Visualizations with R or Python:* enable the creation of custom and advanced visual objects using specific programming languages and libraries.

*Word clouds:* a visual representation where the size of the word represents its frequency within a body of text.

*Sankey diagram:* a Sankey diagram is a type of flow diagram that shows the amount of flow between different stages or categories of a process.

*3D data visualization:* allows exploring data from different angles and perspectives and is used to display spatial, geometric, or volumetric data.

*Data visualization in virtual or augmented reality:* creates virtual environments that allow interacting with data in an immersive and natural way, used to simulate scenarios, experience sensations, or generate emotions with the data.

*Data visualization in sound:* creates sounds or music that represent the data, used to display temporal, frequency, or harmonic data, such as seismic signals, brain waves, or heart rhythms.

Indeed, these data visualization (DV) methods rely on cutting-edge technologies such as artificial intelligence, image processing, and sound analysis. Additionally,

they necessitate specific tools like virtual reality goggles, headphones, or speakers to effectively convey information. As a result, they present both new challenges and opportunities for designing, interpreting, and communicating data in innovative ways.

#### APPLICATION OF DATA VISUALIZATION IN DIFFERENT SECTORS

#### Data Visualization in Healthcare Systems

Data visualization plays a crucial role in data analysis and drawing conclusions. It allows decision-makers to perceive analytics in a more accessible manner. Consequently, it holds immense importance in public health research by facilitating the visualization of patterns and trends in disease outbreaks, epidemiological data, and healthcare disparities. This contribution aids in enhancing global preparedness and response to epidemiological threats.

In medical and healthcare settings, data visualization enables the broader utilization of benefits for team and infrastructure management, as well as the design and monitoring of critical operations. It also supports strategic decision-making. The immediacy of visualizing reports and records provides personalized medical care and saves time, thereby improving the effectiveness of decisions that could be critical to patients' health status.<sup>(5)</sup>

Analyzing patient data more frequently is a valuable application of data visualization, resulting in reduced medical errors and more effective preventive measures. Big Data analysis visualizations in healthcare encompass various branches of this sector: genomics, epidemiology, clinical trials, clinical operations, citizen collaboration, teleassistance, and administrative management.

#### Data Visualization in Economic and Business Management

In the context of business intelligence, data visualization (DV) is essential for the exploration, analysis, and understanding of large amounts of information, which in turn facilitates informed decision-making for greater business effectiveness. Therefore, as time passes, it becomes increasingly important in organizations

Data visualization in business management is focused on problem-solving in various organizational sectors through the extraction, filtering, and modeling of information. This underpins the satisfactory increase in the use of technological tools to develop DV and business intelligence.

A study conducted by Cruz-Osorio *et al.*<sup>(25)</sup> examines the process of designing visualization architectures, encompassing tasks such as creating indicators and visualization dashboards, developing extraction processes, and implementing the model. The study found that these efforts led to accelerated data utilization and the integration of information across the organization. As a result, the study concluded

that implementing such tools is advantageous for enhancing business intelligence in both production and financial domains.

#### Data Visualization Role in Scientific Research and Academia

Within the academic realm, technological tools are employed by university students, educators, and scientists to access, process, analyze, and visualize information. Their objective is to objectively communicate and depict the outcomes of their research and knowledge. Analyzing and visualizing information in this context fosters creative and critical thinking by prompting the generation of inquiries, hypotheses, and conclusions derived from the visualized data.

The tools and skills required for data visualization (DV) in the sciences are becoming increasingly essential. Previously, these techniques were primarily employed in specific fields; however, the widespread availability of certain tools and a rising interest in accessing data for knowledge acquisition have resulted in the adoption of such platforms to aid research endeavors. Both quantitative and qualitative research methodologies utilize these techniques, with selection criteria determined by the researcher based on their suitability for each analysis.

This implies that it is important to consider how data will be represented from the planning phase of the study. Graphs, like statistical tests, are selected based on the study's objectives, types of variables, and statistical analyses to be illustrated. While data visualization is highly beneficial, incorrect usage may lead to discrepancies with reality and foster erroneous interpretations of studies.

Representation of data in metric studies enables a didactic comprehension and visual depiction of extensive datasets. The exponential surge in scientific output has mandated the management of vast quantities of data, spanning retrieval from diverse bibliographic databases to processing and analysis. Addressing this challenge requires techniques for handling substantial data volumes and has spurred trends in data visualization methodologies.

The visualization of bibliometric information stems from the development of specific methodologies and tools tailored for this purpose, alongside databases, metrics, and processing software customized for bibliometric analyses. Furthermore, alternative approaches supported by data and information processing and analysis have emerged, with a focus on utilizing, comprehending, and communicating data in academic, university, and industrial settings.

Scopus, a bibliographic database, offers bibliometric analysis tools that rely on citation counts received by indexed documents, analysis of outcomes, citation reports, document metrics, author analysis, and publication comparisons. Additionally, it is favored by many researchers for such studies due to its capabilities concerning bibliometric indicators like impact, productivity, collaboration, and others.

Furthermore, tools like Bibliometrix, based on R, enable the visualization of bibliometric data and analysis of scientific production. These tools are useful for assessing the influence and impact of research, identifying trends and patterns, and making informed decisions in the academic and scientific spheres.

Another noteworthy instance of data visualization is exemplified by the MetaMetrics tool, an interactive dashboard that produces reports on metadata quality within scientific journals. This platform retrieves data from Open Journal Systems (OJS) used by journals associated with institutions in the Network of Macro-Universities of Latin America and the Caribbean. This case study illustrates how data visualization applied to metadata aids in identifying errors in bibliographic descriptions, which may impede the journal indexing process in international indices.<sup>(30)</sup>

It can be asserted that data visualization facilitates the communication and dissemination of research findings by rendering them more engaging, accessible, and comprehensible to both the general public and fellow researchers. In scientific research, it serves as a potent and adaptable instrument capable of fostering knowledge, innovation, and societal transformation, provided it is executed with rigor, integrity, and accountability.

#### Data Visualization in Journalism and Media

Amidst the backdrop of the mentioned 'datafication,' data journalism has emerged as a pivotal element in today's landscape. This domain has witnessed the rise of a new breed of journalists equipped with fresh skills, employing innovative techniques for gathering and presenting data-driven content.

Professionals in the media endeavor to create a graphical representation of the data that illustrates potential relationships or trends among them. The primary goal is to streamline the presentation of data, conveying them visually for easy comprehension at a glance, thereby sidestepping intricate explanations.<sup>(6)</sup>

Data journalism has embraced data visualization, incorporating digital tools into newsrooms and integrating media into the network. This shift is largely driven by the growing accessibility of data for journalistic purposes. Data journalism appears to have a promising future, thanks to the continuous evolution of registration, collection, processing, and data visualization tools. These professionals are increasingly in demand, both in traditional media and in new platforms.

#### Data Visualization in Politics and Government Management

Data visualization (DV) has emerged as a powerful tool not only for disseminating political messages but also for facilitating the transformation of social and cultural realities. This transformative potential becomes evident in movements like data feminism, which advocates for a critical approach to data analysis and utilization<sup>(7)</sup>.

On the other hand, Camacho-Mata's research aims to use data visualization (DV) to intuitively identify relationships and draw conclusions among various environmental and social indicators. This study focuses on analyzing the Red List Index, the Human Development Index, population density, and CO2 emissions in countries across the Americas from 2005 to 2018. It serves as an example of applying DV to study social issues with an ecological and sustainable development perspective<sup>(8)</sup>.

The information age, emphasizing **informed decision-making**, has fueled the rise of **data visualization (DV)** as a transformative tool in **government management**. DV offers an array of benefits, enabling the **design and management of public policies** with greater efficiency and effectiveness. DV has become an indispensable tool for governments seeking to design and manage effective public policies. By transforming data into actionable insights, DV empowers policymakers to make informed decisions, optimize resource allocation, and improve service delivery, ultimately leading to a more responsive and efficient government.

For instance, in India, satellite images of nighttime lighting were utilized to assess the country's electricity coverage. In Colombia, research investigated the correlation between crime rates and urban infrastructure to predict areas of the city likely to experience increased crime in the future. Meanwhile, in the Philippines, the Open Road application was developed, enabling users to monitor publicly funded road projects.

#### SOFTWARE AND DATA VISUALIZATION TOOLS

Data visualization tools offer a variety of functions and capabilities, allowing users to select the one that best suits their specific needs. There are several platforms and software programs that facilitate this process, each with its own characteristics and advantages. Among them are:

*Microsoft Power BI:* It is a data analysis and business intelligence platform that allows for creating dynamic and interactive dashboards, with a wide variety of data sources and customization options. It is a market leader and offers two versions: Power BI Desktop and Power BI Pro.

**Tableau:** Tableau is a powerhouse in the data visualization world, widely recognized for its user-friendly interface and powerful capabilities. It is one of the most popular and widely used data visualization tools globally. Its extensive user base and established reputation make it a reliable choice for individuals and organizations alike. Tableau's combination of user-friendliness, powerful features, and diverse product offerings make it a compelling choice for anyone seeking to effectively communicate insights through data visualization.

*Google Charts:* It's a free and open-source web tool enabling users to craft data visualizations using Google's technology. It provides a diverse range of charts

including bars, lines, areas, pies, maps, networks, etc., all easily integrable into websites or applications.

**Zoho Analytics:** Cloud-Based Data Analysis Platform. Zoho Analytics is a cloud-based data analysis platform that enables users to create reports and dashboards with data from various sources, including files, databases, web applications, and more. It offers a simple and flexible interface with drag-and-drop functionality, filters, formulas, and more. Zoho Analytics provides a free version and several paid versions to suit different needs and budgets. Zoho Analytics is a comprehensive and versatile data analysis platform that can be used by businesses of all sizes to gain valuable insights from their data. Its cloud-based architecture, flexible interface, and powerful data analysis tools make it a valuable tool for data-driven decision making.

**Data wrapper:** is a web-based platform specifically designed for journalists, editors, and communicators to create impactful data visualizations. It empowers users to effortlessly craft charts, maps, and tables without requiring any programming knowledge.

Data wrapper offers a free version with basic features, ideal for individual exploration and non-commercial use. Several paid plans cater to more demanding needs, providing additional functionalities, customization options, and higher export resolution.

Overall, Data wrapper empowers non-technical users to become data visualization storytellers. Its user-centric design, diverse toolset, and commitment to accessibility make it a valuable resource for anyone seeking to communicate insights through compelling visuals.

**Qlik Sense:** It is a robust data analytics and business intelligence platform designed to facilitate interactive and personalized exploration of data. Powered by Qlik's associative technology, it allows users to navigate data sets intuitively, uncover insights, and make informed decisions. With its intelligent and adaptive user interface, Qlik Sense offers drag-and-drop functionality for effortless data manipulation, advanced search capabilities for efficient data discovery, and storytelling features for compelling data narratives. Qlik Sense is available in multiple versions, including a free edition and several paid editions tailored to different user needs and organizational requirements.

Choosing the right data visualization tool requires careful consideration of several factors to ensure it aligns with your specific needs and project requirements. The key Factors to Consider are Project requirements, Data quality, Software usage costs, Community and support, Technical skill level, Scalability, Security.

Selecting the right data visualization tool isn't a one-size-fits-all approach. By carefully evaluating your project requirements, data quality, budget, and technical

capabilities, you can make an informed decision that empowers you to create impactful and informative visualizations. Remember, a balance between userfriendliness, functionalities, and technical expertise is key to optimal utilization of these platforms.

#### CONCLUSION

In today's information society, characterized by explosive data generation, data visualization (DV) has become an indispensable tool. It empowers individuals and organizations across various domains to extract valuable insights, identify hidden patterns, and communicate complex information with remarkable clarity. In conclusion, DV plays a pivotal role in navigating the vast ocean of data in the information age. By harnessing its power responsibly and ethically, we can unlock valuable insights, make informed decisions, and foster a more data-driven and informed society.

#### REFERENCES

- 1. Mamaqi X, Lope-Salvador V, Vidal-Bordes J. Datafication, big data, and artificial intelligence in communication and economics. Information quality in the digitalization era: professional foundations vs. Infopollution. Madrid: Dykinson; 2018:65
- Alhuay-Quispe J, Estrada-Cuzcano A, Bautista-Ynofuente L. Analysis and data visualization in bibliometric studies. JLIS.it. 2022 May 5;13(2):58-73.
- Borner K, Bueckle A, Ginda M. Data visualization literacy: Definitions, conceptual frameworks, exercises, and assessments. Proceedings of the National Academy of Sciences of the United States of America. 2019;116(6):1857-1864. https://doi.org/10.1073/pnas.1807180116
- 4. Valero-Sancho JL, Català-Domínguez J, Marín-Ochoa BE. Approach to a taxonomy of data visualization. *Latin American Journal of Social Communication*. 2014;(69):486-507.
- Gago-Villa B. The continued use of data visualization screens (DVS): effects on worker health and measures to counteract them. *Ocronos Journal*. 2020;3(5):585.
- Vizoso A. Data journalists and information visualization. In Salaverría R, Martínez-Costa MP. Digital Native Media in Spain. Salamanca: Comunicación Social Ediciones y Publicaciones; 2021. https://doi.org/10.52495/c16.emcs.7.p92
- Bravo L, Rufs C, Moyano D. Data Visualization for Non-oppression and Liberation: A Feminist Approach. Diseña. 2022;21. https://doi.org/10.7764/disena.21.Article.2
- Camacho-Mata N. Data visualization design for the analysis of extinction risk of species groups in the American continent. IDI+. 2023;6(1):4-19. https://doi.org/10.18845/ridip.v6i1.6811.

#### THE EFFECT OF EWOM ON PURCHASE INTENTION OF BUYERS: A SYSTEMATIC REVIEW OF PIECES OF LITERATURE

Debadeepti Jagaty<sup>1</sup>, Dr Umakanta Dash<sup>2</sup>, Dr Puspalata Mahapatra<sup>3</sup>

#### ABSTRACT

Globalization has resulted in intense competition among different product & service providers. With the diverse and large magnitude of products and brands available to consumers, it becomes a complex activity for any customer to expose his or her purchase intention, when all the players in the market are promising a high level of brand quality and features. However, in this technology-driven environment, electronic -word of -mouth in terms of customer reviews, expert opinions, etc. has significantly influenced the consumer's attitude and decision in buying a particular brand or product. The objective of the current study isto synthesize the findings from previous literature on the effectiveness of eWom on different buying characteristics of a consumer which ultimately converts into a purchase decision. The study has focused on comparing the different conceptual models developed by researchers on eWom and intends to derive a conceptual framework that wouldinfluence consumer decisions in the 21<sup>st</sup> century consumer buying decision.

Keywords: eWom, Purchase intention, Reviews, buying behaviors, Feedback.

#### INTRODUCTION

With the introduction of the Internet, the influence of word-of-mouth (WOM) on a consumer's decision-making process has increased. Consumers' information searches and social interactions are made easier by the Internet's attributes of immediacy and interaction. WOM communication in online communities is now more powerful than ever in terms of speed and reach. Social networking sites (SNS) have developed into new platforms and resources for marketers to communicate and exchange information with their target audience as a result of an increase in user popularity. Electronic word of mouth (eWom) has emerged as one of the crucial channels via which customers can learn about products. The dissemination of information about a good or service via social media recommendations, online reviews, or influencer-generated content is known as eWom or electronic word of mouth. Search engines like Google and Bing, e-commerce sites like Amazon and eBay, well-known apps like Yelp, Next-door, and TripAdvisor, and social

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networking sites like Instagram, Facebook, Twitter, TikTok, and YouTube are where this information is shared.eWom is a powerful bridge between online searches and real-world purchase actions.

eWom uses a variety of formats, it could take the form of star ratings, images, movies, or text-based electronic word of mouth. Online reviews are frequently the most important consideration for customers when making decisions. But the street is not one-way! The effectiveness of reviews depends not only on their quantity but also on the answers and responses the company provides to unhappy customers. Social media now have a wide range of chances to promote brands online. Social recommendations were first essentially an altruistic action to aid others in choosing the best goods and establishments. But nowadays, vanity frequently takes its place! A posh restaurant may benefit greatly from people tagging it on social media as social proof that they attended the establishment. An excellent strategy to promote this kind of electronic word of mouth is by developing engaging content and photo opportunities at sites. Reviews of images and videos are visual eWom formats that are closely related to everything mentioned above. Reviews of the company are accompanied by videos and pictures thathelp to give readers a true sense of who you are as a company. Buyers claim that search results with quality photographs influenced their choice.As per the data shared by International Data Corporation (IDC) India Xiaomi and One Plus success is boosted by word-of-mouth marketing and the final decision for a purchase is often based on offers and recommendations from family and friends. Users are also relying more on online reviews before they make the final decision, at least for consumers shopping in the above Rs 30,000 segment (The Indian Express, September 13, 2022). Today's market place is highly influenced by the internet which has changed consumers making purchase decisions. In the modern era, consumers are not confined only on marketer's generated information that is ads or salespeople. Instead, they look upon the reviews on sites such as Amazon, Trip Advisor, or Flipkart, find more information, and check customer feedback on e-commerce sites. They view other people's recommendations and ratings about a particular product or service. This, in other words, turns into eWom. According to Nielsen (2013), 68 percent of people said they would trust online user reviews in 2013, an increase of 7 percentage points from 2007; this finding highlights the expanding influence of eWom. After reading favorable customer reviews, 72% of people become more confident in the company (Anderson 2014). On social media, 58% of customers actively promote their positive interactions with businesses and solicit feedback on brands from friends and family (SDL 2013).84% of consumers said they frequently or always act on personal recommendations. 70% claimed to have used internet user reviews in the same way (Nielsen, 2013). Against the above backdrop, it's observed that eWom not only spreads information faster but also creates a positive impact on sales and purchase intention of buyers. The present study is an attempt to develop a conceptual model to provide a road map of how EWom affects the purchase intention of buyers.

#### LITERATURE REVIEW

It has been evident from the previous literature that if the product meets the expectations of the consumers it leads to positive disconfirmation and if the product doesn't meet the expectations it leads to negative disconfirmation which generates consumer dissatisfaction (Oliver 1977). Consumers have a sense ofbelonging to their online community which helps the consumers to share their experiences on online consumer opinion platforms in the form of online reviews and feedback (Cheung & Lee, 2012). Online reviews and website reviews have helped retain consumers by giving positive and negative eWom contentwhich helped in developingmarketing strategies (Nam *et al.*, 2020). Group buying websiteshave affected perceived values on relationship quality and loyalty which has improved in retaining existing customers and attracting new users with the help of emotional connections with users and changing them into user loyalty (Xia & Chae, 2021)

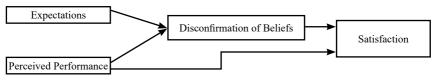


Figure 1: Source: Oliver (1977)

However, the fact cannot be ignored that consumers judge the usefulness of information based on the quality and credibility of the person who is sharing it. As per the Elaboration likelihood model, there are two types of routes to influence a person, they are the Central route and the peripheral route (Petty & Cacioppo, 1986). In the eWom context, the consumers who are involved inlow involvement process of online consumer reviews engage in the peripheral route focusing on noncontent cues such asan indication of product popularityhigh-involvement process are likely to adopt he central route because reviews and comments are important to them (park&lee, 2008). Therefore eWom plays a vital factor that dominates the e-commerce site providing managers with specific recommendations for augmenting the viability of eWom spread through on the web (Moradi & Zihagh, 2022). EWom plays a vital factor that dominates the e-commerce providing specific recommendations for augmenting the viability of eWom spread through the web (Moradi & Zihagh, 2022). In decision-making process consumers are more influenced by related arguments and they scrutinize the positive reviewsand ratings while deciding on purchase (P. Wang, 2014). Hence, In the decision making process consumers aremore influenced by arguments as they scrutinize the positive

reviews and ratings towards the product(P. Wang, 2014). People derive intentions towards adopting technology and people with similar intentions develop in adopting a particular idea or behavior as reflected in the Information adoption Model. Consumers with similar intentions have been observed to adopt knowledge from online review communities, as they are significantly influenced by herd behavior when they follow each other (X. L. Shen *et al.*, 2014). The quality of information provided in content and the source of information helps the consumers to get useful information which leads to information adoption when the consumers are involved online.



Figure 2: Information Adoption Model Source: Sussman and Siegal (2003)

SNSs help in planning the connections between friendly social variables, character attributes, and clients involvement in e-WOM communication and there might be factors whichcould possibly influence people's goal to share their product information through the online environment with the help ofe-WOM correspondence social networking sites (SNSs) (Majali & Bohari, 2016). The ideas flow from mass media to opinion leaders before being distributed to a large population and the opinion leaders are perceived as experts and more knowledgeable regarding the information passed. Opinion leaders have impact on eWom significantly on online communities to the groups they belong to (Y.U. Wang, 2018) as reflected by Extension to the Multistep flow model proposed by Model Elihu Katz and Lazarsfeld (1955).

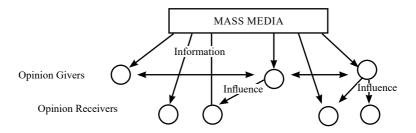


Figure 3: Source: ElihuKatz and Lazarsfeld (1955)

It has been found that the eWom message and the active participation of consumers on social media websites leads to increase the consumer engagement share information about the product rapidly online (Z. Shen, 2021).

#### **Research Gaps**

A systematic review of the literature as discussed above shows the impact of EWom on the International context. However not much has been done to study of eWom on the purchase intention of buyers in the Indian context. Previous studieshave focused on more social networking sites and reviews and ratings which affect the buying behaviour of the customers. Consequently, the eWom content platform, which consists of ratings and reviews, and includes messages distributed through various online platforms like Instagram, Facebook, and Twitter has a significant impact on online purchases. eWom Credibilitywhich refers to the amount of trust that people place in an online suggestion an impact while deciding on purchase and Message Volumewhich refers to the number of postings and reviews that have an impact on customers' purchase intentions. In this context, the proposed model can be presented as follows:

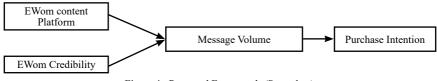


Figure 4: Proposed Framework (By author)

#### METHODOLOGY USED FOR THE STUDY

The research is based on secondary data in the form of existing literature non the subject. Research articles were collected from the databases like EMERALD, SAGE, ELSEVIER, PROQUEST, etc., and were later analyzed to build the theoretical constructs and arguments systematically to develop a conceptual model for further research. The paper has reviewed the literature to provide a clear understanding of Wom and eWom in the context of consumer information searches. Wom is the oldest medium for sharing opinions about products or services and the most likely to influence consumer behavior due to information transmitted by family and friends. When consumers need information about a product or service, they ultimately turn to online media to gather information from someone else it be friend or a family member through a content platform. The communication of opinions is no longer done interpersonally but rather mediated by Information communication technology. People share their views and opinions directly through online platforms.

#### DISCUSSION AND CONCLUSION

Our research demonstrates that the approach we developed is appropriate for the e-commerce sector. Positive eWom predictors include satisfaction, affective commitment, and high-sacrifice commitment. Both the Credibility and the volume of eWom are influenced by satisfaction. Unhappy consumers are far more likely to share their unpleasant experiences online (eWom), but their posts and comments will be negative (unfavorable). The consequence is that e-commerce businesses run the risk of having more negative eWom than positive eWom (since angry customers tend to be more vocal on Facebook). Due to this, marketing managers should strategically increase positive eWom while simultaneously lowering the volume of negative eWom. Encourage happy customers to share their stories online as this is a wonderful method to generate positive eWom. Asking satisfied customers for recommendations and testimonials, especially those who use social media frequently, will help e-retailers get their names out there. Negative eWom should likewise be avoided at all costs by e-commerce businesses. There are several ways to do this, including making it simple for unhappy customers to contact the business (so they can voice their complaints and expose their problems), accepting responsibility for these customers' negative experiences, having efficient customer support, and resolving these issues quickly, and providing refunds (within reason) to customers who request them. It may be a good idea to offer clients a community (forum) where they can voice their complaints because doing so reduces the likelihood that they will do so on social media. Thus, future researchers should examine Customer satisfaction and belief as a primary antecedent of eWom Credibility in generating positive eWom, and look for people who are thought leaders in various product areas. They are known as Opinion leaders who are very helpful since they frequently spread their words to a large number of individuals (friends, admirers, or followers), considerably enhancing the effectiveness and strength of the eWom.

#### REFERENCES

Arumugam, V., & Omar, A. (2016). Electronic Word-of-Mouth Information Adoption by Online Consumers. *International Journal of Science and Research (IJSR)* ISSN, 5(12), 1865–1869. https://doi.org/10.21275/ART20163762

Cheung, C. M. K., & Lee, M. K. O. (2007). Information adoption in an online discussion forum. ICE-B 2007 - *Proceedings of the 2<sup>nd</sup> International Conference on e-Business*, 322–328. https://doi.org/10.5220/0002110703220328

Cheung, C. M. K., & Lee, M. K. O. (2012). What drives consumers to spread electronic word of mouth in online consumer-opinion platforms? Decision Support Systems, 53(1), 218–225. https://doi. org/10.1016/j.dss.2012.01.015

Khalid, J., Abbas, A., Mahmood, M. Q., Tariq, A., Khatoon, M., Azhar, S., Akbar, R., Rafia, Akbar, A., Meer, A., & Ud Din, M. J. (2020). Significance of electronic word of mouth (e-WOM) in opinion formation. *International Journal of Advanced Computer Science and Applications*, 11(2), 537–544. https://doi.org/10.14569/ijacsa.2020.0110268 Majali, T. A., & Bohari, A. M. (2016). A conceptual model of electronic word of mouth communication through social network sites: The moderating effect of personality traits. *International Review of Management and Marketing*, 6(7Special Issue), 265–269.

Moradi, M., & Zihagh, F. (2022). A meta-analysis of the elaboration likelihood model in the electronic word-of-mouth literature. *International Journal of Consumer Studies*, August 2021, 1900–1918. https://doi.org/10.1111/ijcs.12814.

Nam, K., Baker, J., Ahmad, N., & Goo, J. (2020). Determinants of writing positive and negative electronic word-of-mouth: Empirical evidence for two types of expectation confirmation. Decision Support Systems, 129, 113168. https://doi.org/10.1016/j.dss.2019.113168

Rahaman, M. A., Hassan, H. M. K., Asheq, A. Al, & Islam, K. M. A. (2022). The interplay between eWOM information and purchase intention on social media: Through the lens of IAM and TAM theory. PloS One, 17(9), e0272926. https://doi.org/10.1371/journal.pone.0272926

Rouibah, K., Al-Qirim, N., Hwang, Y., & Pouri, S. G. (2021). The determinants of ewom in social commerce: The role of perceived value, perceived enjoyment, trust, risks, and satisfaction. *Journal of Global Information Management*, 29(3), 75–102. https://doi.org/10.4018/JGIM.2021050104

Sánchez Torres, J. A., Cañada, F. J. A., Moro, M. L. S., & Irurita, A. A. (2018). Impact of gender on the acceptance of electronic word-of-mouth (eWOM) information in Spain. Contaduria y Administracion, 63(4). https://doi.org/10.22201/fca.24488410e.2018.1428

Shaker, A. K., Mostafa, R. H. A., & Elseidi, R. I. (2021). Predicting intention to follow online restaurant community advice: a trust-integrated technology acceptance model. *European Journal of Management and Business Economics*. https://doi.org/10.1108/EJMBE-01-2021-0036

Shen, X. L., Zhang, K. Z. K., & Zhao, S. J. (2014). Understanding information adoption in online review communities: The role of herd factors. *Proceedings of the Annual Hawaii International Conference on System Sciences*, 604–613. https://doi.org/10.1109/HICSS.2014.81

Shen, Z. (2021). A persuasive eWOM model for increasing consumer engagement on social media: evidence from Irish fashion micro-influencers. *Journal of Research in Interactive Marketing*, 15(2), 181–199. https://doi.org/10.1108/JRIM-10-2019-0161

Wang, P. (2014). Understanding the influence of electronic word-of-mouth on outbound tourists' visit intention. IFIP Advances in Information and Communication Technology, 445, 33–45. https://doi.org/10.1007/978-3-662-45526-5\_4

Wang, Y. U. (2018). A Theoretical Model for Studying the Influence of Opinion Leaders towards the Purchase Intentions of Consumers in the Online Community of Consumption. 3, 32–34.

Xia, Y. X., & Chae, S. W. (2021). Sustainable Development of Online Group-Buying Websites: An Integrated Perspective of ECM and Relationship Marketing.

Ying, Z., Jianqiu, Z., Akram, U., & Rasool, H. (2021). TAM model evidence for online social commerce purchase intention. *Information Resources Management Journal*, 34(1), 86–108. https://doi.org/10.4018/ IRMJ.2021010105

#### EFFECT OF OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT ON WORKERS' PRODUCTIVITY

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#### ABSTRACT

The general objective of this study was to examine the effect of occupational health and safety management on workers' productivity using the University of Ilorin Teaching Hospital (UITH), Kwara State, Nigeria as a case study. The specific objectives of the study were to examine the effect of safety assurance on employee effectiveness and ascertain the influence of OHS training on job performance. The research adopted a descriptive survey research design while the sampling technique adopted is multi-stage sampling and the population of the study comprised of the staff working in the hospital which is 1526. A total number of three hundred and eight (308) copies of questionnaires were distributed which represents the sample size and was arrived at using Krejicie and Morgan (1970) formula but two hundred and eighty-one (281) copies of the questionnaires were correctly filled and returned and used for the analysis of this study. The responses to the questionnaires were analyzed using multilinear regression at 0.05 significance level for the study. The study, therefore, concluded that there is a significant effect of occupational health and safety management on workers' productivity. Based on the findings, the study recommended that hospitals should ensure the safety of their staff to make them much more effective at work.

*Keywords:* Occupational health, Safety Management, Workers productivity, Employee effectiveness, Safety Assurance.

#### INTRODUCTION

The International Labour Organization (ILO) and the World Health Organization (WHO) have been at the forefront of efforts to promote worker safety and wellbeing across the world (*ILO 2021*). Governments, businesses, employees, and the public at large have all faced unprecedented problems as a result of the COVID-19 epidemic and the numerous implications it has had on the workplace. (*International Labour Organization, 2021*). According to a 2012 ILO study on 'workers' health and safety,' companies must devote greater resources to improving the workforce health and safety at work. According to a 2012 report by the International Labour Organization, over 2.3 million men and women die each year as a result of workrelated infections and diseases, equating to over 6000 deaths every day. Yearly,

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there are approximately 340 million workplace injuries and 160 million sufferers of work-related diseases in the world.

Poor health and safety precautions at the workplace cost the global economy 4% of GDP, which is only the direct cost of working in a dangerous and unhealthy workplace. In most outstanding Western economies, social protection consumption on OHS, such as mandatory illness pay, disability compensation, and inadequacy benefits, accounts for around 2-3 percent of GDP (*ILO*, 2003).

Occupational health and safety is integral to maintaining that individuals are not hurt while at duty, and that grief, distress, and death are prevented. Maintaining that individuals are not hurt can help residents work longer and contribute to the country's development and prosperity. Optimizing occupational health and safety has several advantages, including allowing people to live lengthier lifespan, increasing economic activity, lowering prices for health and social services, and lowering the costs of disease and disability on a personal and collective level (*Cudjoe, 2011 & Bennet 2011*).

Improving workplace health and safety is in everyone's best interests, but until the ILO issued standards on occupational safety and health in 1959, companies were less concerned about their employees' health and safety concerns (*Cudjoe, 2011*). Employers did not establish safety and health rules, and most employees were injured to a variable extent during their workdays. A wounded worker may be required to petition for reparations, which is usually unsuccessful, and the cost of doing so prevents most victims from litigation. However, in 1959, the International Labour Organization (*ILO*) issued guidelines for the formation of work health and safety services in businesses that strive to address workers' health and safety situations. Among the suggestions offered to prevent work-related include safeguarding the workforce against any sort of health danger and assisting workers with physical and emotional adjustment.

The Nigerian Labor Act of 1974 ensures that workers' health and safety are safeguarded. It states that 'it is the obligation of a manager to guarantee that every individual engaged by him/her performs in acceptable, secure, and healthy circumstances' and that 'it is the responsibility of an organization to provide that every individual hired by him/her performs in acceptable, secure, and healthy surroundings.' Because the legislation does not stipulate the installation of safety and health administrators in enterprises, most businesses do not have safety managers who remotely monitor dangers that endanger individuals' health, which explains why there are so many cases of workplace injuries.

The level of damage and mortality suffered by workers in the health industry is frequently used to assess occupational safety and health. Another approach to assess the success of worker safety is to look at the costs associated with injury and death.

Insurance premiums, missed pay, and lost production all add up to a significant financial loss for businesses (*Cudjoe*, 2011).

Workers well-being is ensured by a friendly atmosphere, which inevitably allows them to give their best to their jobs, resulting in increased production *(Akinyele, 2007).* Nevertheless, reliant on the extent of industrialization, the rate of work-related incidents and fatalities differs per country. Developing nations, in particular, continue to suffer far greater losses in work-related injuries than industrialized countries *(Demba, Ceesay, & Mendy, 2013).* This does not exclude Nigeria especially university of Ilorin Teaching Hospital. However, due to recent outbreaks of diseases of which no immediate has been found cases like the Ebola virus in Africa, corona virus in the world put health workers at risk because they are at the frontline trying to contain the outbreak.

Workers have the right to safe and healthy conditions under the Occupational Safety and Health Act *(OSHA)*. Management should make sure that their workspaces are devoid of hazards associated that might damage their workers. This law also provides workers with vital rights to participate in initiatives that safeguard them against workplace risks *(OSHA, 2004)*. However, because of poverty and illiteracy, individuals will labor in any institution or perform any task handed to them in order to make a living.

This study examines the effect of occupational health and safety management on workers' productivity. It will examine the commitment of management towards ensuring workers health and safety, workplace design, and workplace environment.

#### STATEMENT OF THE PROBLEM

Injuries, deaths, excessive absenteeism, and attractive remuneration expenses have plagued major Nigerian health sectors, posing a threat to the country's economic progress. This stems from the fact that the negative consequences of an unpleasant and hazardous working environment remain to afflict labor productivity in the country, and have the potential to stifle long-term economic progress.

Inadequate guidelines have a negative impact on safety procedures, resulting in a high rate of fatalities, injuries, and property destruction. This has a detrimental influence on the company since workers are not driven to produce their best work, which leads to poor performance. As a result, resources that would have been used to develop staff, provide bonuses, or broaden the stockpile of necessary medical facilities are instead being used to care for more caregivers and themselves, as well as employing temporary staff, paying for reimbursement, and dealing with related legal matters, all of which have an impact on the organization. Health care facilities are huge, sophisticated organisational, system-driven entities that engage a diverse range of experts. Kumar, Goud, and Joseph (2014) performed research on the association between Occupation Health and Safety (OHS) practices and employee job satisfaction in Indian hospitals. According to the data, there is a strong link between OHS procedures and work satisfaction. Cudjoe (2011) also looked at the link between OHS management practices and employee performance in Ghanaian hospitals. The data imply that good occupational health and safety measures contribute to work satisfaction. As can be observed in the case of Cudjoe (2011), the majority of these research were conducted in poor nations and for profit organizations, as well as in developed countries (*Kumar* et al., 2014).

Similar studies have been carried out at manufacturing enterprises in Nigeria, focusing on personnel who work in industries and workshops. Iheanacho and Ebitu (2016) investigated the impact of industrial safety and health on employee work performance at a number of cement plants in Nigeria's Cross River State. It's important to see if comparable results can be repeated in non-manufacturing businesses, particularly hospitals, which are service businesses (UITH). Furthermore, none of the research mentioned above were undertaken during a pandemic, such as the Covid-19 virus, which has been devouring our globe since 2019 and continues to do so. It is in this vein that the study has chosen to examine the effect of occupational health and safety management on the workers productivity in university of Ilorin teaching hospital.

### **RESEARCH OBJECTIVES**

The main objective of this study is to examine the effect of occupational safety and health management on workers' productivity. To achieve this, the following specific objectives were:

- i. Examine the effect of safety assurance on employee effectiveness;
- ii. Ascertain the influence of OSH training on job performance; and

### **RESEARCH HYPOTHESES**

- Ho<sub>1</sub>: Safety assurance has no significant effect on employee's effectiveness.
- Ho<sub>2</sub>: OSH training has no significant influence on job performance.

### LITERATURE REVIEW

### **Conceptual Clarifications**

### Occupational Safety and Health

Occupational health and safety, according to the International Labour Organization (ILO), is a broad subject that spans a variety of specialist professions. This incorporates a wide range and preservation of staff members' physiological, psychological, and socioeconomic well-being in all occupations; the mitigation of

negative impacts on employees' health that could have been induced by their working conditions; the provision of a safe in their careers from health-related risks; and the arrangement and preservation of staff members in an occupational setting that is appropriate to their cognitive and emotional necessities. Effective worker safety and health management necessitates far more than reducing the number of workplace-related fatalities and injuries; it is a positive term that encompasses psychosocial resources as well as physical strength related to the ability to set and achieve goals, meet individual desires, and respond with day-to-day life (*Eric, 2015*).

#### **Occupational Safety and Health Measures**

Managing the occupational safety and health of emergency medical personnel necessitates a systematic strategy that encompasses a variety of management tasks such as planning, organizing, implementing, monitoring, and evaluating activities in a logical order. The OSH management system for disaster response employees should be consistent with or incorporated into overall emergency preparedness management, including the phases of readiness, reaction, and restoration. The International Labour Organization (ILO) published a report in 2018.

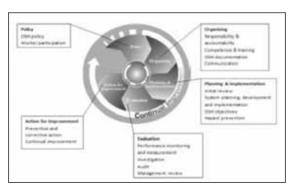


Figure 1: The continual improvement cycle of the OSH Management System

### Key components of the OHS management system

Through the ICS, all emergency managers, team leaders, and workers' representatives must be taught in the construction of an OHS management system in outbreaks and crises. This includes (*Figure 1*): workplace OSH policies; organizational structure and OSH roles and responsibilities within the ICS; planning, including resource mobilization (e.g. human resources, personal protective equipment (PPE), monitoring equipment, medicines and vaccines, OSH procedures and guidelines); and monitoring and evaluation mechanisms (e.g. indicators, checklists).

Source: OSH Management System: Tool for Continual Improvement, International Labour Organization

The following are critical needs for OSH management unique to emergency reaction personnel during epidemics and emergencies, according to the ILO (2018): The proper people with the necessary abilities and qualifications for the task are chosen. Risk assessment, risk management, and risk communication management training for chosen professionals in health and safety. OSH risk assessment and management during implementation. Surveillance for negative effects of deployment on respondents' physiological, psychological, and social health, as well as management of these effects, including emotional therapies and counselling.

#### **Employee Productivity**

For many firms, increasing employee productivity has long been a top priority. This is because increased employee productivity has many advantages for both the organization and its employees. For example, increased productivity adds to favourable productivity expansion, enhanced revenue, and greater social development (Sharma & Sharma, 2014). More effective workers may anticipate greater pay, better working conditions, and better career opportunities. Additionally, increased productivity improves an organization's competitive edge by cutting costs and boosting output quality (Baily et al., 2005; Hill et al., 2014; Wright, 2004). All of these benefits have increased employee productivity to unprecedented heights. As a result, studying its predecessors is essential for assuring organizational longterm viability and effectiveness. One of the most serious challenges facing most firms today is how to boost employee productivity. Employee productivity refers to the efficiency of a single employee or a group of employees. Productivity, in actuality, is a factor that has a direct influence on a company's profits (Gummesson, 1998; Sels et al., 2006). Productivity may be assessed in terms of a worker's output over a specific period. Because a company's success is primarily based on the productivity of its employees, employee productivity has become an important aim for enterprises (Cato & Gordon, 2009).

Employee engagement, according to some researchers, is a concept that comprises mental, emotive, and behavioural factors that are linked to the function of work performance (*Shuck* et al., 2011). It indicates an individual's dedication and interest in his or her employment to increase organizational performance (*Sundaray, 2011*). According to Bakker and Demerouti (2008), vigour refers to a worker's level of energy and mental toughness while performing his or her job. According to Shirom (2003), vigor relates to a worker's mentally and physically wellness. In other words, committed workers are enthusiastic about their work, delighted to work for their company, and eager to come to work every day (*Ramanujam, 2014*). Employees who are interested in their work are also seen as critical to their employers' ability to sustain competitive advantages, deal with change, and ensure work innovation.

#### **Theoretical framework**

#### High reliability theory and the human capital perspective

The claim that safety is incompatible with other operational performance objectives has strong support in the safety (e.g., Zohar, 2002) and operations literature (e.g., de Koster et al., 2011) literatures, but it is relatively unknown. In the literature, there is an equally convincing approach based on human capital and HRT. Continuous improvement-based management systems are best practice, according to the operations management community, and they necessitate well-trained and encouraged staff. Human capital must be recognized and exploited in an optimal production system. Employees who aren't safe aren't appreciated, and they can't be exploited.

HRT's projections align nicely with the human capital concept. According to HRT, in highly trusted companies, accidents may be avoided. These companies are referred to as "mindful," implying that they prioritize safety, pay close attention to structure and procedures, have methods for recognizing human capital, and have a safety culture. Accidents and other catastrophes, such as quality problems or late delivery, can be avoided by highly trustworthy businesses.

The evidence implies that safety and other operational results change in lockstep, which HRT can explain. Employees trust management and can concentrate on their duties when a system is safe; the production system should be under control, which is a vital requirement for excellent outputs; hence, expenses will be minimized. This set of forecasts might be used to any successful OHSMS, not simply those that are OHSAS certified. If all OHSMS increased dependability, the organizational perspective's forecast that accreditation was primarily a signaling tool should be backed up.

External certifications, according to the literature on certification, have added features over internal systems, such as improved process consciousness, greater measurement and control, less room for backpedaling because an external appraiser must be comfortable on a regular basis, and methods of training and involvement of employees (*e.g., Curkovic and Pagell, 1999; Sroufe and Curkovic, 2008*).

From the aforementioned theories, the high capacity theory was chosen as the theoretical framework for describing the relationship between OHS management and worker's effectiveness in this study. According to the high capability hypothesis, safety and other operational results are linked. Workers trust management and can concentrate on their duties when a system is safe; the production system should be under control, which is a vital requirement for excellent results; as a result, expenses will be decreased and productivity levels will improve. This set of assumptions might be applied to any system that effectively manages workplace health and safety (OHSMS). If the organization's OHSMS enhances employee reliability, employees will be less concerned about their health and safety and will be considerably

more creative as a consequence of a high degree of dedication, commitment, and participation.

#### **Empirical Framework**

Iheanacho and Ebitu (2016) examined the influence of workplace safety and health on employee performance at a few enterprises in Nigeria's Cross Rivers State. The study used a survey design with a sample size of one hundred people (100). The study's hypotheses were tested using the Pearson Moment correlation coefficient. The study's findings revealed that employees in the analyzed companies had great job performance thanks to the accessible industrial safety and health initiatives. Organizations should constantly guarantee effective industrial safety/health practices management, according to the study, in order to safeguard their workers' lives at work, reduce turnover, and further improve their workers' performance.

Dunmade, Kadiri, Akindele, and Ishola (2019). The study used a simple random sample approach with a structured questionnaire to obtain the necessary information from the respondents. Simple percentages and tables were employed as descriptive statistics, whereas multiple regressions were used as inferential statistics. The study's findings revealed that Kam Wire Industry employees could analyze the company's occupational health and safety standards properly and quickly. The study's findings also revealed that industrial health and safety measures had a substantial impact on employees' work performance in the sector (R2 = .148; F= 16.413, p 0.05). The research concludes that: attempts should always be made to include employees in decision-making that directly affects them; and routine inspection and maintenance of the company's safety and health management facilities should be carried out regularly. This is to ensure that the amenities are up to date.

At the South Tongu District Hospital, Gbadago, Amedome, and Honyenuga (2017) evaluated the amount of employee knowledge of the Ghana Health Service's OHS Policy, as well as to see if the policy had been implemented in the organization and to identify the types of dangers that employees experience as a result of their jobs. To sample 116 employees, the research used both stratified and basic random sampling methods. The findings also revealed that staff employees at the study hospital are exposed to a variety of risks, including safety risks, mechanical risks, biological risks, ergonomic risks, physical risks, and psychological risks. The study's findings identified budgetary constraints as the hospital's principal impediment to the introduction and maintenance of OHS procedures.

#### METHODOLOGY

The research adopted descriptive survey research design while the sampling technique adopted is multi stage sampling and the population of the study constitute the staff working in the hospital which is 1526. A total number of three hundred and eight (308) copies of questionnaires were distributed which represents the sample

size and was arrived at using Krejicie and Morgan (1970) formula but two hundred and eighty-one (281) copies of the questionnaires were filled correctly and returned and used for the analysis of this study. The responses to the questionnaires were analyzed using SPSS and hypotheses were tested using multi linear regression at 0.05 significance level for the study.

#### **TESTING OF HYPOTHESES**

*Hypothesis one:* Safety assurance has no significant effect on employee's effectiveness.

ſ					
	Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	1	.996ª	.993	.993	.10547

a. Predictors: (Constant), Health insurance, safety policy, Safety promotions

Source: SPSS Output, 2024

The result shows the  $R^2$  which is the coefficient of determination gives approximately 99.3%. This implies that 99.3% of employees' effectiveness (dependent variable) is affected by safety assurance (independent variable) while the remaining percentage of the employees' effectiveness may be affected and determined by other unexplained factors. Also, the R square adjusted which is the level of correlation between the two variables i.e. safety assurance and employees' effectiveness shows .993 which indicate that there is high degree of correlation between the variables. This implies that health insurance, safety policy and safety promotions as proxies of safety assurance are positively related to employees' effectiveness.

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	436.601	3	145.534	13083.152	.000 <sup>b</sup>
	Residual	3.081	277	.011		
	Total	439.682	280			

a. Dependent Variable: Employee Effectiveness

b. Predictors: (Constant), Health insurance, safety policy, safety promotions

Source: SPSS Output, 2024

The F-statistics are shown from the ANOVA table is significant since the ANOVA significance of .000 is less than the alpha level of .05, thus the result is achieved. Also, the regression sum of square of 436.601 is greater than residual sum of square of 3.081, this further show the significance of the overall model therefore the proxy which are health insurance, safety policy and safety promotions are major determinant of factors affecting employees' effectiveness.

	Model	Unstand Coeffi		Standardized Coefficients	Т	Sig.	
		В	Std. Error	Beta		-	
1	(Constant)	.082	.022		3.664	.000	
	Health insurance	.644	.022	.640	29.318	.000	
	Safety policy	.295	.022	.325	13.426	.000	
	Safety promotions	.036	.007	.048	5.405	.000	

Table 3: Coefficients<sup>a</sup>

a. Dependent Variable: Employees' effectiveness

Source: SPSS Output, 2024

The coefficient of individual independent variable indicated that health insurance (.644), safety policy (.295) and safety promotions (.036) have strong, fair and weak effect respectively as proxies of safety assurance on employees' effectiveness. In addition, the probability and t-statistics value of health insurance .000 and (29.318), safety policy .000 and (13.426) and safety promotions .000 and (5.405) further suggest that the relationship between safety assurance and employees' effectiveness is significant since alpha level of 0.05 is greater than the p-values of 0.000, 0.000 and 0.000. The conclusion therefore is that safety assurance as a proxy of occupational health and safety management has influence on employees' effectiveness as a proxy of workers' productivity. Health insurance has the highest coefficient, this is because health insurance is a form of guarantee of workers health and compensation for any exposure to health risk.

Therefore, since  $R^2$  of 99.3% is positive and the ANOVA significance of .000 is less than p-value of .05, therefore, the null hypothesis which states that 'Safety assurance has no significant effect on employee's effectiveness.' is not accepted and the alternate hypothesis when stated is accepted. This is in keeping with Victoria's (2006) finding that employees feel appreciated in businesses where health and safety regulations are highly pushed since they are kept safe at work. This allows people to attain organizational success by doing exceptionally effectively on the job.

*Hypothesis two:* OHS training has no significant influence on job performance. T-11. 4. M. 1.1 C.

Table 4: Model Summary							
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate			
1 .993ª .985		.985	.15584				

a. Predictors: (Constant), Health and safety coaching, Health and safety seminars, Health and safety

Source: SPSS Output, 2024

conference

The result shows the  $R^2$  which is the coefficient of determination gives approximately 98.5%. This implies that 98.5% of job performance (dependent variable) is affected by OHS training (independent variable) while the remaining percentage of the job performance may be affected and determined by other unexplained factors. Also, the R square adjusted which is the level of correlation between the two variables

i.e. OHS training and job performance shows .985 which indicate that there is high degree of correlation between the variables. This implies that health and safety coaching, health and safety seminars and health and safety conference as proxies of OHS training are positively related to job performance.

Model		Sum of Squares	df Mean Square		F	Sig.
1	Regression	451.206	2	225.603	9289.594	.000 <sup>b</sup>
	Residual	6.751	278	.024		
	Total	457.957	280			

Table	5:	ANOVA <sup>a</sup>	

a. Dependent Variable: Job Performance

b. Predictors: (Constant), Health and safety coaching, Health and safety seminars, Health and safety conference

Source: SPSS Output, 2024

The F-statistics are shown from the ANOVA table is significant since the ANOVA significance of .000 is less than the alpha level of .05, thus the result is achieved. Also, the regression sum of square of 451.206 is greater than residual sum of square of 6.751, this further show the significance of the overall model therefore the proxy which are health and safety coaching, health and safety seminars and health and safety conference are major determinant of factors affecting job performance.

	Table 6: COEFFICIENTS <sup>a</sup>							
	Model		Model Unstandardized		Standardized Coefficients	Т	Sig.	
			В	Std. Error	Beta			
Γ	1 (Constant)		055	.027		-2.083	.038	
		Health and safety coaching	.768	.030	.723	25.307	.000	
		Health and safety seminars	.090	.006	.994	17.199	.000	
		Health and safety conference	.266	.028	.276	9.672	.000	

a. Dependent Variable: Job performance Source: SPSS Output, 2024

The coefficient of individual independent variable indicated that health and safety coaching (.768), health and safety seminars (.090) and health and safety conference (.266) have strong, weak and fair effect respectively as proxies of OHS training on job performance. In addition, the probability and t-statistics value of health and safety coaching .000 and (25.307), health and safety seminars .000 and (17.199) and health and safety conference .000 and (9.672) further suggest that the relationship between OHS training and job performance is significant since alpha level of 0.05 is greater than the p-values of 0.000, 0.000 and 0.000. The conclusion therefore is that OHS training as a proxy of occupational health and safety management has influence on job performance as a proxy of workers' productivity. Health and safety seminar has the highest impact on job performance. As seminars are easy to hold than conferences and are held almost every time, or even coaching that takes time. It is the most effective means of ensuring safety of worker in organization.

Therefore, since  $R^2$  of 98.5% is positive and the ANOVA significance of .000 is less than p-value of .05, therefore, the null hypothesis which states that 'OHS training has no significant influence on job performance.' is not accepted and the alternate hypothesis when stated is accepted. This is in line with Agbola's (2012) findings, which reveal an organization plagued by poor health and safety management practices, inadequate training in safety knowledge, an insufficient information on destructive chemicals and hazardous substances, a lack of ensuring compliance of safety procedures, and the absence of adequate safety equipment, all of which have negative consequences for organizational outcomes.

#### CONCLUSION

The study considered the effect of occupational health and safety management on worker's productivity, the study concluded that safety assurance should be given consideration when discussing factors affecting employees' effectiveness amongst the staffs of UITH. Safety assurance is significant in order to maximize employees' effectiveness. However, there are also proxies of safety assurance such as safety programs safety precaution and so on. It is therefore important to realize that safety assurance should not be limited to one dimension, but also other factors relating to safety management. When UITH staffs gets their health assured by the management, they feel a level of confidence and that makes them to be much more effective at work and thereby increase their productivity level.

Furthermore, OHS training had a significant influence on job performance amongst UITH staffs in Unilorin. OHS training is an important factor affecting the level of employee's job amongst students. When employees receive adequate rigorous training, they get equipped with the necessary skills required for their task or job performance. The training therefore help them to perform better and make them more productive.

#### RECOMMENDATIONS

A crucial assessment of the effect of occupational health and safety management on employee productivity with a particular reference to UITH, Ilorin, Kwara State was made and conclusions were reached. In view of the findings given above, the following recommendations were suggested;

i. UITH and other Hospitals as well as clinics should ensure that they assure the safety of their staffs so as to make them much more effective at work. This can be achieved by making sure that every employee's health is insured. The management of the hospital or clinic should ensure that safety policies are implemented and enforced and also make sure that they promote the safety of their staffs. To assure the safety of workers in the hospital, management of the

UITH should provide safety medical equipments and secure the insurance of each workers health with a health insurance firm.

- ii. UITH management, hospitals and clinics should ensure that employees go through occupational health and safety trainings that will help them to understand how much they need to care for their health and safety. This can be achieved by ensuring that staffs are coached on safety tips, seminars and conferences must be conducted on health and safety of employees. Manuals on health and safety guidelines should be provided. Practical on the job and off the job coaching should be conducted.
- iii. UITH management, hospitals and clinics should enforce tools for hazard prevention in other to encourage high employee's engagement at work. This can be done by ensuring that every employees are on their personal protective equipments such as facemask, google, lab coat, cover shoes, hand gloves cap and the likes in other to prevent them from exposure to hazard.

#### REFERENCES

Alman, D. (2010) "Organizational health: improving organizational performance and employee wellbeing" *Journal on safety science*.

Akinyele, S.T., (2007) "Need satisfaction: an effective tool for workers commitment to work" *Res. J. Bus. Manage.* 2(1):67-81.

Akinyele, S.T., (2010) "The influence of work environment on workers' productivity: A case of selected oil and gas industry in Lagos, Nigeria" *Res. J. Bus. Manage.* 4 (3):45-63.

Baily, M. N., Farrell, D., Greenberg, E., Henrich, J. D., Jinjo, N., Jolles, M., & Remes, J. (2005). Increasing global competition and labor productivity: Lessons from the US automotive industry. McKensie Global Institute, November, 7.

Bakker, A. B., & Demerouti, E. (2008). Towards a model of work engagement. *Career Development International*, 13(3), 209-223.

Bennet, J.B., (2011) 'Prevention interventions of alcohol problems in the workplace: A review and Guilding framework' *Journal on Alchol Research and Health*, 34(2):77-89.

Cato, S. T., & Gordon, J. (2009). Relationship of the strategic vision alignment to employee productivity and student enrolment. *Research in Higher Education Journal*, 7(1):86-93.

Curkovic, S., Pagell, M., 1999. A critical examination of the ability of ISO 9000 certification to lead to a competitive advantage. *J. Qual. Manag.* 4 (1), 51–67.

Cudjoe, S.F., (2011) 'An assessment of occupational health and safety practices on job performance at the Tetteh Quarshie Memorial Hospital, Mampong-Akuapem' KNUST-Ghana

de Koster, R.B.M., Stam, D., Balk, B.M., 2011. Accidents happen: the influence of safety-specific transformational leadership, safety consciousness, and hazard reducing systems on warehouse accidents. *J. Oper. Manag.* 29 (7–8), 753–765.

Demba, E Ceesay O, & Mendy G, (2013) Prevention of work related accidents, including high risk sectors such as agriculture, construction and minning. *The Gambia country report.* Geneva: International Social Security Association.

Dunmade E, Kadiri B, Akindele I, & Ishola A (2019) Evaluating The Impact Of Occupational Health And Safety Measures On Work Performance In Kam Wire Industry, Ilorin. Departments of Accounting & Finance and Business Administration, Fountain University, Osogbo. *Fountain University Osogbo Journal of Management (FUOJM)*, 2019, 4(3),

Eric, O.O (2015).Effect of occupational safety and health programmes on employee performance at Kenya Power Company Limited. A research project submitted in partial fulfillment of the requirements for the award of degree of Master of Science in Human Resource Management, School of Business, University of Nairobi.

Gbadago, P, Amedome, S. N & Honyenuga, B.O (2017). The impact of occupational health and safety measures on employees' performance at the South Tongu District Hospital. *Global Journal of Medical Research: K Interdisciplinary*, 17 (5).

Gummesson, E. (1998). Productivity, quality and relationship marketing in service operations. *International Journal of Contemporary Hospitality Management*, 10(1), 4-15.

Hill, C., Jones, G., & Schilling, M. (2014). Strategic management: theory: an integrated approach. Cengage Learning.

International Labor Organization, (2004). Introduction to occupational health and safety. Geneva, International Labor Office. Jyothi, P., and Venkantesh, D. N., (2006). Human Resource Management. India: Oxford University Press.

Iheanacho, M. U. & Ebitu, E. T. (2016). Effects of industrial safety and health on employees' job performance in selected cement companies in Cross River State, Nigeria. *International Journal of Business and Management Review*, 4 (3).

International Labor Organization, (2003). Work hazards kill millions, cost billions .www.ilo.org/about-thr-ilo/mission-and objectives/features/WCMS\_075615/lang--en/index.htm

International Labour Organization (2012). Safety and health at work. Online:http://www.ilo.org/global/topics/afety\_and\_health\_at\_work//ang...en/index.htm.

ILO (2013) Safety in Numbers: Pointers for a Global Safety Culture at Work, Geneva, Switzerland

International Labour Organization, (2018) Occupational safety and health in public health emergencies: A manual for protecting health workers and responders, Geneva, 2018.

International Labor Organization, (2021). World Day for Safety and Health at Work 2021.www.ilo.org/moscow/areas-of-work/occupational-safety-and health/WCMS\_249278/lang—en/index.htm

Kumar, Goud, and Joseph, (2014) A study of occupational health and safety measures in the laundry Department of a private tertiary care teaching hospital, Bengaluru. *Indian Journal of Occupational and Environment Medicine* 18(1)

Lim, A. (2012). OHS management system: Three benefits for construction enterprise. Retrieved on 12<sup>th</sup> August 2013 from www.artipot.com/ article-tags/ohs-management system.

Loeppke, R., Taitel, M., Richling, D., Parry, T., Kessler, R.C., Hymel, P., Konicki, D., 2007. Health and productivity as a business strategy. *J. Occup. Environ. Med.* 49 (7).

Occupational Health and Safety Program Manual, (2004). Communication (sect.4:2), Government of New Found land and Labrador: Department of Transportation and works.

Oxenburgh, M., Marlow, P., 2005. The productivity assessment tool: computer based cost benefit analysis model for the economic assessment of occupational health and safety interventions in the workplace. *J. Saf. Res.* 36 (3).

Ramanujam, N. (2014). Fostering productivity, organizational effectiveness via employee engagement .Retrieved on 13 August, 2015 from: http://insights.wired.com/profiles/blogs/

fostering-productivityorganizational-effectiveness-via-employee?xg\_source=msg\_appr\_blogpost#axzz3iewHyaaO.

Robson, L.S., Clarke, J.A., Cullen, K., Bielecky, A., Severin, C., Bigelow, P.L., Irvin, E., Culyer, A., Quenby, M., 2007. The effectiveness of occupational health and safety management system interventions: a systematic review. Saf. Sci. 45 (3), 329–353

Sels, L., De Winne, S., Delmotte, J., Maes, J., Faems, D., & Forrier, A. (2006).

Linking HRM and small business performance: An examination of the impact of HRM intensity on the productivity and financial performance of small businesses. *Small Business Economics*, 26(1)

Sharma, M. S., & Sharma, M. V. (2014). Employee Engagement to Enhance Productivity in Current Scenario. International Journal of Commerce, Business and Management, 3(4), 595-604.

Shirom, A. (2003). Feeling Vigorous at work? The construct of Vigor and the study of p o s i t i v e affect in organizations, in Ganster, D. and Perrewe, P.L. (Eds). Research in Organizational Stress and Well-being, JAI Press, Greenwich, CT, 135-65

Shuck, M. B., Rocco, T. S. & Albornoz, C. A. (2011). Exploring employee engagement from the employee perspective: implications for HRD. *Journal of European Industrial Training*, 35(4), 300325.

Sundaray, B. K. (2011). Employee Engagement: A Driver of Organizational Effectiveness. *European Journal of Business and Management*, 3(8), 53-57

Sroufe, R., Curkovic, S., 2008. An examination of ISO 9000:2000 and supply chain quality assurance. *J. Oper. Manag.* 26 (4), 503–520.

Tadesse S, Kelaye T, Assefa Y. (2006)Utilization of personal protective equipment and associated factors among textile factory workers at Hawassa Town, southern Ethiopia. *Journal of Occuppational Medicine & Toxicology* 11(6).

Wright, A. (2004). Reward management in context. CIPD Publishing

Zohar, D., 2002. Modifying supervisory practices to improve subunit safety: a leadership-based intervention model. J. Appl. Psychol. 87 (1), 156–163.

#### A COMPARATIVE ANALYSIS OF EXPORTS, IMPORTS AND GROWTH OF INDIAN ECONOMY

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## ABSTRACT

This study is about the comparative analysis on the growth rate of imports and the growth rate of exports during 2009 to 2023. The foreign trade includes all of merchandise and service goods and it is administrated by the Ministry of Commerce and Industry. India had an isolated economy before economic liberalization in 1991 because of high average tariffs—200 percent or more—and significant quantitative import restrictions. Since the liberalization, India's economy has improved mainly due to increased foreign trade. From 2009 to 2023 India saw a 323.05% of change in total foreign trade. India's foreign trade is estimated to cross 48 % of India's GDP for the fiscal year ending March 2023. India exports approximately 7500 commodities to about 190 countries, and imports around 6000 commodities from 140 countries. According to the Ministry of Commerce and Industry, the fifteen largest trading partners of India represent 61.67% of total trade by India in the financial year 2022–23 After analyzing the GDP data of Indian economy and India's export and import performances India's foreign trade is elevated even though it was affected in the COVID 19 period. As of 2023, India is the seventh largest exporter of commercial services in the world, accounting for 4.6% of global trade in services. Though the exports volume and values are increased, unfortunately India's share in the world's exports is still not up to the prospect.

Keywords: Foreign trade, Economic sectors, GDP, Pandemic.

## INTRODUCTION

Export and Import are very crucial part of our international trade and have always been so in the past. Export helps the country to earn dearer foreign exchange which supports imports and this promotes the economic growth. Export tends to have a positive influence on economic growth by keeping import constant but import negatively influences economic growth by keeping export constant. No countryin the world can produce each and everything by itself this is because nature has not gifted each and every country with same productive resources. Hence each and every country has to depend upon international trade to fulfill the requirements of

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it's people. International trade has been defined as the activity of buying (import) and selling (export) of goods and services among nations of the world.

Prior to the 1991 economic liberalization, India was a closed economy due to the average tariffs exceeding 200 percent and the extensive quantitative restrictions on imports. Foreign investment was strictly restricted to only allow Indian ownership of businesses. Since the liberalization, India's economy has improved mainly due to increased foreign trade. Reforms in India in the 1990s and 2000s aimed to increase international competitiveness in various sectors, including auto components, telecommunications, software, pharmaceuticals, biotechnology, research and development, and professional services. These reforms included reducing import tariffs, deregulating markets, and lowering taxes, which led to an increase in foreign investment and high economic growth. From 1992 to 2005, foreign investment increased by 316.9%, and India's GDP grew from \$266 billion in 1991 to \$2.3 trillion in 2018.

India exports approximately 7500 commodities to about 190 countries, and imports around 6000 commodities from 140 countries. According to the Ministry of Commerce and Industry, the fifteen largest trading partners of India represent 61.67% of total trade by India in the financial year 2022–23. These figures include trade in goods and commodities, but do not include services or foreign direct investment. The two largest goods traded by India are mineral fuels (refined / unrefined) and gold (finished gold ware / gold metal). Counting the European Union as one, the WTO ranks India fifth for commercial services exports and sixth for commercial services imports. The two main destinations of exported Indian merchandises are the EU market and the US, when the two main markets of origin are China and the EU. These figures include trade in goods and commodities, but do not include services or foreign direct investment.

## LITERATURE REVIEW

Pragyan and Rashmita Khate (2019) reviews the existing literature on India's foreign trade, focusing on key themes such as trade dynamics, policy interventions, and the impact of economic reforms. One central aspect of the literature revolves around the examination of annual growth rates of exports and imports. Notably, the current study aligns with their findings, underscoring the higher growth rate of imports compared to exports in the specified period. Hari Prasadand Bhavani Prasad (2018) delve into the historical context, analyzing trends during the pre- and post-liberalization eras. These works contribute to the understanding of the consistent growth in foreign trade, emphasizing the acceleration observed in the post-liberalization period. The choice of GDP as a key variable for assessing the impact of foreign trade aligns with the broader literature on the subject. CA Naveen Kumar Tiwari (2021) has documented the historical context of foreign trade as a driver of economic progress

in the literature. Studies by Rajan and Kumar (2015) and Subramanian (2018) delve into how India's foreign trade responded to economic reforms, emphasizing the increasing trend in trade volume and its positive correlation with economic growth. These findings align with the present study's conclusion regarding the positive relationship between economic reforms and India's foreign trade.

Dr. Priyanka Sahni (2014) provides a comprehensive understanding of the historical context, the economic reforms of 1991, and the dynamics shaping India's exports in the pre and post-reform periods. The synthesis of these works informs the subsequent analysis of trends in India's exports and their implications and further study of imports and exports before and after the covid pandemic.Som Sekhar Bhattacharyya and Akash Deep Choudhury (2017) emphasizes trade as a key indicator of a country's economic progress. Focusing on emerging economies, the authors delve into India's sectoral trade data from 1996-1997 to 2014-2015, using trend analysis. The objective is to discern India's impact on the global economy and vice versa. Shreya Gupta (2018) emphasizes the global imperative for nations to enhance their citizens' quality of life through macroeconomic development. It highlights India's pivotal economic reforms in 1991, particularly in the external sector.Reddy and Lakshmi (2020) in their study suggest that FDI and real GDP growth positively impact export growth, while there is no standalone evidence of inflation causing such growth. Instead, inflation, combined with FDI and real GDP, influences export growth. The study also identifies a reciprocal relationship, indicating that export growth, inflation, and real GDP growth jointly influence FDI. Gopalakrishnan and Mahalakshmi (2018) investigates the significant role of foreign trade in contributing to the economic growth of India, particularly in the context of policy changes introduced since 1991. The study aims to analyze the trends and composition of trade in India and assess its impact on the overall economic growth. Reddy (2020) delves into the relationship between exports, imports, and economic growth in India over the period 1980-2019. The positive influence of both exports and imports on economic growth is consistent with broader findings in the literature, reinforcing the notion that international trade contributes significantly to economic development.

## **OBJECTIVES OF THE RESEARCH**

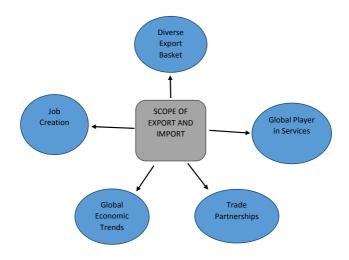
The objectives of the research are to conduct a comprehensive comparative analysis of India's foreign trade dynamics from 2009 to 2023, with a specific focus on the growth rates of exports and imports and also to explore the changes in total foreign trade, export and import volumes, and the trade-to-GDP ratio over the specified period, offering insights into the nation's integration into the global economy.

## **RESEARCH METHODOLOGY**

This is a descriptive and analytical study. The study is based on secondary sources where the data is collected various sources from the year 2009 to year 2023 from official websites like https://tradestat.commerce.gov.in/eidb/default.asp.The collected data is analysed using MS Excel.

### Scope of Import and export in Indian economy

India has a vibrant and dynamic import and export sector, playing a crucial role in its economy. The scope of import and export in the Indian economy is vast and encompasses various industries and products.



The scope of import and export in the Indian economy is extensive, covering a diverse range of sectors. Strategic efforts to address challenges, enhance competitiveness, and capitalize on global opportunities are vital for sustaining and expanding India's role in the global trade landscape.

# 3.2 Importance of Import and Export in Indian Economy

- 1. Economic Growth: International trade, through both imports and exports, contributes to economic growth by providing access to a larger market. It allows Indian businesses to expand their customer base globally, leading to increased production, employment, and overall economic activity.
- 2. Foreign Exchange Earnings: Exports generate foreign exchange earnings for India, which is essential for maintaining a healthy balance of payments. These earnings help in financing imports, paying off external debts, and building foreign exchange reserves.

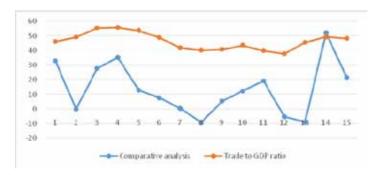
- **3.** *Diversification of Revenue Sources:* Relying solely on the domestic market can be risky. International trade allows Indian businesses to diversify their revenue sources, reducing dependence on a single market and providing a buffer against economic downturns in specific regions.
- 4. Access to Resources: Imports provide access to essential resources, raw materials, and intermediate goods that may not be abundantly available in India. This is crucial for sustaining manufacturing activities and ensuring the competitiveness of Indian industries.
- 5. Technological Exchange: International trade facilitates the exchange of technology and know-how. Exposure to global markets allows Indian businesses to adopt advanced technologies, improve efficiency, and enhance their competitiveness on a global scale.
- 6. *Enhancing Competitiveness:* Participation in the global market encourages Indian businesses to improve the quality of their products and services, adhere to international standards, and become more competitive. This, in turn, benefits consumers and boosts the overall competitiveness of the Indian economy.
- 7. *Trade Balance:* While a trade surplus is desirable, the import of certain goods and services is essential for economic development. For example, importing capital goods, technology, and raw materials can fuel domestic production and infrastructure development.
- 8. *Government Revenue:* Customs duties and taxes levied on imports contribute to government revenue. This income can be utilized for public expenditure, infrastructure development, and social welfare programs.

Overall Foreign Trade of India from 2009 – 2023 (in crores)					
Year	Export	Import	Total Trade	Comparative Analysis	Trade To GDP Ratio
2009	8,40,755.05	13,74,435.37	22,15,145.42	32.79	46.27
2010	8,45,533.63	13,63,735.54	22,09,146.08	-0.27	49.26
2011	11,36,964.25	16,83,466.95	28,20,417.17	27.67	55.62
2012	14,65,959.39	23,45,463.23	38,11,360.42	35.13	55.79
2013	16,34,318.28	26,69,161.95	43,02,659.63	12.89	53.84
2014	19,05,011.08	27,15,420.78	46,20,379.09	7.38	48.92
2015	18,96,348.41	27,36,676.99	46,33,014.63	0.27	41.92
2016	17,16,384.39	24,90,303.76	41,98,765.47	-9.37	40.08
2017	18,49,433.54	25,77,671.14	44,17,847.67	5.21	40.74
2018	19,56,514.52	30,01,028.71	49,57,229.16	12.2	43.62
2019	23,07,726.18	35,94,674.22	59,02,345.17	19.06	39.91
2020	22,19,854.17	33,60,95445	55,80,708.38	-5.44	37.8
2021	21,59,043.21	29,15,957.54	50,74,987.30	-9.06	45.67
2022	31,47,021.48	45,72,770.69	77,19,655.45	52.11	49.37
2023	36,21,549.86	57,49,801.02	93,71,289.39	21.39	48.23

#### DATA ANALYSIS AND INTERPRETATION

overall Foreign Trade of India from 2009 - 2023 (in crores)

Sources :https://tradestat.commerce.gov.in/eidb/default.asp



#### Interpretation:

Over the period from 2009 to 2023, India's foreign trade has displayed dynamic patterns. India's exports have shown a general increasing trend over the years, from 8,40,755.05 crores in 2009 to 36,21,549.86 crores in 2023. Imports have also increased significantly, from 13,74,435.37 crores in 2009 to 57,49,801.02 crores in 2023. The total trade (sum of exports and imports) has grown substantially from 22,15,145.42 crores in 2009 to 93,71,289.39 crores in 2023. The comparative analysis column indicates the percentage change in total trade compared to the previous year. For instance, in 2011, there was a significant increase in total trade by 27.67%, and in 2016, there was a decrease of -9.37%. The trade-to-GDP ratio is a measure of the importance of foreign trade in the economy. It is calculated by dividing total trade by the Gross Domestic Product (GDP) and multiplying by 100. The ratio has fluctuated over the years, with the highest ratio in 2012 at 55.79% and the lowest in 2020 at 37.8%.

## DISCUSSION AND ANALYSIS

- Over the analyzed period, India has experienced consistent growth in both exports and imports.
- The growth in exports is notable, reaching 36,21,549.86 crores in 2023, reflecting the country's expanding global market presence.
- The increasing imports, reaching 57,49,801.02 crores in 2023, indicate rising domestic demand and reliance on foreign goods.
- The total trade volume has surged from 22,15,145.42 crores in 2009 to 93,71,289.39 crores in 2023.
- This substantial increase underscores India's integration into the global economy, engaging in extensive trade activities.
- The comparative analysis reveals fluctuations in the growth rate of total trade.

- Significant positive values in certain years, such as 2012 and 2022, suggest periods of robust economic activity and trade expansion.
- Negative values, observed in 2010, 2016, and 2020, indicate years where total trade contracted, possibly due to global economic downturns or specific regional challenges.
- The trade-to-GDP ratio has varied over the years, reflecting changing levels of economic openness.
- The highest ratio in 2012 (55.79%) indicates a strong reliance on international trade for economic growth.
- The dip in 2020 (37.8%) suggests a relative reduction in the importance of foreign trade, potentially due to protective economic measures amid global uncertainties.
- The data underscores India's increasing role in global trade, with the country participating in a higher volume of international transactions.
- The surge in exports and imports in 2022 indicates a pivotal year where India significantly expanded its global market presence.
- The positive growth trends in recent years, especially in 2022 and 2023, suggest that India is well-positioned for continued global economic engagement.
- Ongoing assessment and adaptation of trade policies will be essential to navigate potential challenges and capitalize on opportunities.

## **Policy Implications:**

- Policymakers can use this data to assess the impact of trade policies on the economy.
- High trade-to-GDP ratios may indicate a need for policies that foster international trade, while decreases might prompt measures to stimulate domestic economic activities.

### Suggestions

- 1. Enhance Digital Trade Infrastructure: Invest in and promote the development of digital infrastructure for seamless online trade processes. This includes digital documentation, e-payments, and online platforms for businesses to connect with global partners.
- 2. Strengthen Supply Chain Resilience: Build more resilient and adaptable supply chains to mitigate the impact of disruptions. Foster collaborations between the government and private sector to ensure the stability of critical supply chains.
- **3.** Trade Facilitation Measures: Implement measures to simplify trade procedures and reduce bureaucratic hurdles. This includes streamlining customs processes,

reducing paperwork, and enhancing the ease of doing business for exporters and importers.

- 4. Explore New Markets: Actively explore and enter new markets by participating in trade fairs, exhibitions, and business delegations. Strengthening diplomatic and economic ties can open doors to untapped markets for Indian products.
- **5. Promote Sustainable Practices:** Embrace sustainable and eco-friendly practices in manufacturing and production. Many consumers worldwide prefer environmentally conscious products, and promoting sustainability can be a market advantage.
- 6. Support Small and Medium Enterprises (SMEs): Provide support and incentives to SMEs involved in export-oriented activities. These enterprises often face challenges in terms of resources and capabilities, and targeted assistance can contribute to their growth.
- 7. Infrastructure Development: Invest in modern infrastructure, including transportation, logistics, and technology. Upgrading ports, roads, and digital connectivity can significantly improve the efficiency of trade operations.
- 8. Government Incentives: Offer targeted incentives and subsidies to promote export-oriented industries. This can include tax breaks, export credits, and financial support to encourage businesses to explore and expand their presence in global markets.

# CONCLUSION

The research underscores India's dynamic growth in foreign trade from 2009 to 2023. The analysis reveals a consistent increase in both exports and imports, showcasing India's expanding global market presence. The surge in total trade volume reflects active participation in international transactions across diverse sectors. The trade-to-GDP ratio fluctuated, indicating varying levels of economic openness. Key findings highlight the pivotal role of foreign trade in India's economic growth, generating foreign exchange earnings and diversifying revenue sources. Positive trends in recent years position India favorably for continued global economic engagement. Policymakers can use these insights to shape effective trade policies, fostering international trade for sustained economic growth. Practical suggestions include enhancing digital trade infrastructure, strengthening supply chains, and promoting sustainable practices.In essence, India's foreign trade journey reflects growth, adaptation, and resilience. Strategic policy measures will be crucial for sustained economic competitiveness on the global stage.

#### **REFERENCES:**

- Bhanushali, D. K. (2007). Recent Change in the Dimensions of India's Foreign Trade. Available at SSRN 979682.
- Bhattacharyya, S. S., & Choudhury, A. D. (2017). Study of Indian exports and imports; sectoral trend analysis for 19 years between 1996-1997 to 2014-2015. *International Journal of Business and Globalisation*, 19(2), 233-290.
- 3. Devi, S. S. (2013). Export, economic growth and causality-A case for India. *Journal of Global Economy*, 9(1).
- Gopalakrishnan, A., & Mahalakshmi, A. (2018). A study on impact of foreign trade in india in the post liberalisation era. *Economics*, 6(3), 1-7.
- 5. Gupta, D. S. (2019). An analysis of Indian foreign trade in present era. Available at SSRN 3540833.
- Kumari, J. (2014). Export, Import and Economic Growth in India: A Study. *The Indian Economic Journal*, 62(3), 1157-1168.
- 7. Nayak, P. P., Khatei, R., &Khatei, L. (2019). Trends of India's Foreign Trade in Pre and Post Reform Era. *International Journal of Research in Economics and Social Sciences (IJRESS)*, 9(9).
- Pillania, R. K. (2008). An exploratory study of Indian foreign trade. *Journal of Applied Economic Sciences (JAES)*, 3(03), 281-292.
- Reddy, K. K. (2020). Exports, imports and economic growth in India: An empirical analysis. *Theoretical and Applied Economics*, 27(4), 323-330.
- Reddy, T. K., & Lakshmi, V. D. M. V. (2020). Role of exports in economic growth: Evidence from India. Economic Affairs, 65(4), 481-490.
- Sahni, P. (2014). Trends in India's exports: a comparative study of pre and post reform period. *IOSR Journal of Economics and Finance (IOSR-JEF)*, 3(2), 8-18
- 12. Srinivasan, S. (2015). India's Import Export Scenario During 2004–2013. Indian Journal of Economics and Development, 3(1), 127-131.
- Tiwari, N. K., & Mishra, S. K. (2021). A Comparative Study of India's Foreign Trade in Pre and Post Reform Era. International Journal for Research in Applied Science & Engineering Technology, 9, 2040-2048.
- 14. https://tradestat.commerce.gov.in/eidb/default.asp
- 15. https://www.macrotrends.net/countries/IND/india/trade-gdp-ratio

#### ENTREPRENEURSHIP EDUCATION & ITS EFFECTIVE MANAGEMENT FOR THE ECONOMY GROWTH

Ms. Pavithra V1

### ABSTRACT

This study mainly focuses in the Indian context, where this study delves around entrepreneurship education with effective managerial skills, which would be developed among the individuals, by navigating them to understanding the complexities of the business world. Developing interpersonal and managerial skills among students which would reduce the employment rates to a great extent, as budding entrepreneurs will avail more job opportunities, which would lead to economic growth. This study has followed qualitative research methodology, the research gap in these papers deals with developing rural areas education with the help of national education policy.

Keywords: Entrepreneurship Education, Managerial Skills, Economic Growth

### INTRODUCTION

An entrepreneur is a person who has the ability to establish or start his own business venture with the motive of earning profit along with a risk entitled to it. It is often said that an entrepreneur is a person who thinks, is creative and innovative, and with an intention to replace the old ideas with the new ones and be able to sustain in the market for a longer duration . Entrepreneurship is not evolved when they are born but being built through their journey of their life, this kind of development in one's life is possible through education, and few entrepreneurs are evolved by bringing a change to the society. Along with this when the young minds of our country can be shaped through entrepreneurial education which teaches them on how to look for a existing problem and giving a apt solution to it, entrepreneurship is all about finding solutions for the problem, students will gain more insights on to utilize the limited resources in a effectively and efficiently, by this kind of approaches through education, students will understand and be able to develop risk- taking abilities through proper guidance with hands on experienced mentors, during the process they will be understand the real world challenges too. As per the statistics by Ministry of education India produces one million graduates every year, and it is also said that at any given time about 5 million graduates remain unemployed, though the unemployment rate has reduced to 6.6 from 8.7 in 2017- 2018, but over 42% of India's graduates under 25 are remained unemployed in 2021- 22 as per "State of Working India 2023" report by Azim Premji University's Centre for

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sustainable employment. But these statistics can be reduced even more when a student thinks creatively and starts his own business venture. When an entrepreneur is successful, they can create sustainable employment and provide employment. Entrepreneurship is not about a person being successful, but making others also successful along with them.

### **OBJECTIVES/ RESEARCH QUESTIONS**

- To examine the outcome of students by reducing the unemployment rates with the help of entrepreneurial education.
- To understand how well a student responds to societal problems and bring innovative approaches to solve them.
- To know about effective management in entrepreneurial education by fostering economic development.

# THEORETICAL FRAMEWORK

There can be variations in understanding whether an individual is born with an ability to be an entrepreneur or it can be learned. Well, many researchers say that some aspects of entrepreneurship should be taught for anyone in the journey of becoming an entrepreneur. In today's generation students are exposed to new things, it is not the usual learning, a lot of practical learning has been practiced in many universities and institutes. Earlier the notion of anyone to take education was in the aim of pursuing the degree and acquiring a 9 to 5 job in order to have a safe and secure income, but as things have changed, young adults are trying to pursue their dreams and passion through making it a business. Therefore, we understand that teaching entrepreneurship has a wider range of exposure to any individuals to think beyond and develop their own venture. It is not only about creating essential personality traits but also flourishing a mindset and attitude that is required for a successful entrepreneurship. There still is a debate about whether entrepreneurship courses will not help people's inner drive to start their journey instead of holding it as a supporting system to the journey of entrepreneurship. Entrepreneur intention plays a vital role in making one's idea successful. This intention is defined as a responsive state of mind that would result in stating a new business. Entrepreneurship intention can be developed though certain tactics influencing entrepreneurial behaviors. (Chhabra et al., n.d.) Entrepreneurship can also lead to economic development. It is not only about entrepreneurship happening just because a person wants to start a business but it is also about various other factors like boosting income, creating jobs, and driving students to achieve their passion. Education regarding this becomes essential as it is about making differences. By solving the problems which arise in the economy, it is very essential for an entrepreneur to bring in solutions with innovative ideas. An entrepreneur is being born in the society by looking around

the problems and trying to bring in some positive change to and thus through this journey many entrepreneurs have become successful. In order to increase the number of entrepreneurs, the quality needs to be standardized. When we talk about quality it is about enhancing the knowledge, attitude and skills required for an entrepreneur. Recently, the competitive edge has been higher, it is quick and accessible to find and utilize things. The idea of innovation might play a vital role in future as the completion is huge There is no business that will succeed without constant creative intention. (Lv et al., 2021) The primary reason behind universities promoting entrepreneurial education is because to solve issues like unemployment and economic changes. There can be seen positive view on entrepreneurship, young people are ready to take risk and make their reach the right customer. The recent culture that we speak about is startup culture, where there are many startups coming and they becoming more familiar in the minds of consumer. We can also observe how education on entrepreneurship would boost them more to take up. Educating is not only focusing about teaching the factors influencing an individual to become an entrepreneur but also integrating real life assessments for them to have a hands on experience on how businesses would work would be more effective. (Zhao et al., n.d.) Social entrepreneurship is viewed as a process of improving economic growth which addresses social environmental sustainability. Despite the changes of educating students about entrepreneurship, some universities still lack to embrace this in order to drive a positive change amongst students. there is a need on why universities should adapt these changes. Primarily being the evolving changes in the environment and current trends about entrepreneurship is more. Therefore, the need of institutions to understand how important this would bring in an individual's life needs to be considered. (Lepik & Urmanavičienė, n.d.) After the digital transformation, during the COVID-19 pandemic the role and significant for entrepreneurship education in global management has significantly improved, which would help the young minds to understand and to deal with uncertain environment, unpredicted challenges, managing all these, and considering the external factors while making a decision will make sure that a student is being prepared for any crucial roles, and managing their own business in a much simpler and a effective way, colleges and universities should incorporate crisis management.

(Ratten & Jones, n.d.) It is very essential to understand the relationship between management and education and its interpersonal relation. A few entrepreneurs passed out from B-schools which not only fosters economic development but also helps in job creation. It provides valuable insights to the growth of the economy to a great extent. (Waraich & Sharma, n.d.) Entrepreneurial education is very essential for the developing countries, and management education along with it adds and creates a the best synergized content, just learning the courses doesn't help in great development, but the satisfaction of those learning is the actual outcome when it is being put to practice, but there is a great gap between learning and practicality (Piperopoulos & Dimov, n.d.) Universities and colleges should adopt by conducting business plan competitions, industry-based sessions, which should include a series of talks by experts, workshops & projects. Adding these in the curriculum will increase students' confidence. The college should build a networking programme as well in order to manage the interpersonal skills of an individual which benefits the students to venture new business ideas. (Vispute, n.d.) The importance of teaching entrepreneurial education is increasing drastically in universities and institutions. In today's competitive world, becoming an entrepreneur is not about having an idea, it is also about developing the idea in the best way. In order for any individual to represent their idea in the best way, educating them based on their idea is essential. Innovative teaching techniques which include experiential learning, field-based study, projects, active learning. This kind of learning would help any person aspiring to become an entrepreneur to achieve as these methods provide practical experiences, fostering the development of an entrepreneur's journey. Teaching entrepreneurship in institutions is not only beneficial to an individual who is aspiring to become an entrepreneur but also it boosts the overall economy. This would result in fostering innovation and creating more job opportunities which in turn helps for the growth or progress of a country. (Bhaskar & Dayalan, 2021) Entrepreneurship is a journey that involves continuous process, it is never about just innovating an idea but also working on that idea continuously to make people buy your idea. The challenge arises when several people want to start a business, but not everyone is actually involving the process through their intentions. There is a huge gap between these intentions and their behavioral aspects of being an entrepreneur. Institutions do involve a major role in shaping one's individual entrepreneurial journey. Intentions play a crucial role in predicting entrepreneurial actions, they only account for a specific portion of the variability in the actions taken. (Sancho et al., 2022).

## SCOPE OF THE STUDY

This study focuses mainly in the Indian context, about the employment trends with relation to entrepreneurship, also educating students about the entrepreneurial courses in various universities, colleges and institutions, and also assessing the skill set development among students because of these courses offered in their syllabus. For a successful venture, the students have to be equipped with entrepreneurial skills, which helps in developing managerial skills. The important aspect that an entrepreneur should follow is effective management. Education in entrepreneurship helps in acquiring managerial skills such as strategic planning, financial management, leadership. This study mainly emphasizes entrepreneurship education with societal entrepreneurs, with fostering management and entrepreneurial education.

# METHODOLOGY

The research methodology is qualitative, which comprises secondary data analysis, to understand the importance of entrepreneurial education in the universities, colleges and institutions, with effective managerial skills. This study aims to understand the effect of independent variables like curriculum content and institutional support over the dependent variables such as GDP growth and unemployment rates. Overall, this study aims to reduce unemployment and contribute to the economic development of India, as today's youth is the key to shaping tomorrow's society.

## **Research** gap

- More study can be conducted in rural areas, in order to improve entrepreneurial education among the rural citizens.
- Studies can be focused on improving entrepreneurship education through National Educational Policy.

## FINDINGS

Education serves as a primary foundation for young biding entrepreneurs, as it shapes the individuals' mindsets with innovative approaches, through such approaches there is a positive trend and by addressing the unemployment and economic stability when the universities and colleges adapt to the entrepreneurial education and effective management students will not only learn in order to pass the subject but also develop interpersonal skills that is very essential in today's modern era, the impact of these skills would reflect on the economic development as the young budding entrepreneur will start dealing with the real life problems once they graduate, and the thinking capacity of the students would have been increased, in such a way that they start bringing in new and advanced solutions to the social problems, which not only benefits the society but also gives satisfaction for the students by pursuing their passion. Only entrepreneurial education won't change the world, but the student should also learn how to strategically manage things which helps in cultivating a successful venture.

## CONCLUSION

The entrepreneurship education has the potential to equip each individual to become a young bidding entrepreneur which promotes economic growth of the country. When the students are addressed about societal problems, they become more responsible citizens and try to bring in some change to the society with the equipped knowledge and uses required managerial skills which was gained through the entrepreneurship education courses and its effective management during the course curriculum. Additionally, along with the courses the entrepreneur has to continuously upgrade themselves with the evolving trends and challenges. Finally investing in these

courses is just not an investment for education but it is an investment for the economic prosperity and well being of the nation. The investment in entrepreneur education extends beyond personal development, it is a strategic move for finding a solution to a problem therefore finding the gap becomes crucial. Education is the future, as it is an investment on the young minds, aspiring to become an entrepreneur from their unique ideology. In today's digital age, nothing is impossible to learn, the available sources give us the support in understanding the concepts in a much simpler way. The quality of education has also been widely increasing, there are border scope of studies entering, which encapsulates the freedom of idea ,therefore entrepreneurship will not only enhance an individual for his own growth but also it would help to give a solution to a problem and also making things easier , more accessible if invented in a customized way, opportunities for people to work under the same interest, global recognition of the product will not only help oneself but also helps in overall growth of the economy.

#### REFERENCES

Bhaskar, P., & Dayalan, P. (2021). Promoting entrepreneurial ecosystem in higher education institutions. In Journal of Emerging Technologies and Innovative Research (JETIR), *Journal of Emerging Technologies and Innovative Research* (Vol. 8, Issue 5) [Journal-article]. https://www.jetir.org/papers/JETIR2105717.pdf

Chhabra, M., Dana, L., Malik, S., & Chaudhary, N. S. (n.d.). Entrepreneurship education and training in Indian higher education institutions: a suggested framework. *Journal of Education and Training*, 63(7/8), 1154–1174. https://doi.org/10.1108/et-10-2020-0310

Lepik, K., & Urmanavičienė, A. (n.d.). The Role of Higher Education Institutions in Development of Social Entrepreneurship: The Case of Tallinn University Social Entrepreneurship Study Program, Estonia. Innovation, Technology and Knowledge Management, 129–151. https://doi.org/10.1007/978-3-030-84044-0\_7

Lv, Y., Chen, Y., Sha, Y., Wang, J., An, L., Chen, T., Huang, X., Huang, Y., & Huang, L. (2021). How entrepreneurship education at Universities Influences entrepreneurial Intention: Mediating effect based on entrepreneurial competence. *Frontiers in Psychology*, 12. https://doi.org/10.3389/fpsyg.2021.655868

Piperopoulos, P., & Dimov, D. (n.d.). Burst Bubbles or Build Steam? Entrepreneurship Education, Entrepreneurial Self-Efficacy, and Entrepreneurial Intentions. *Journal of Small Business Management*, 53(4), 970–985. https://doi.org/10.1111/jsbm.12116

Ratten, V., & Jones, P. (n.d.). Entrepreneurship and management education: Exploring trends and gaps. *The International Journal of Management Education*, 19(1), 100431. https://doi.org/10.1016/j. ijme.2020.100431

Sancho, M. P. L., Ramos-Rodríguez, A. R., & De Los Ángeles Frende Vega, M. (2022). The influence of university entrepreneurship-oriented training in the transformation of intentions into new businesses. *The International Journal of Management Education*, 20(2), 100631. https://doi.org/10.1016/j. ijme.2022.100631

Vispute, J. (n.d.). Management education and entrepreneurship: a positive relationship. https://www.vupune.ac.in/blog/management-education-and-entrepreneurship-a-positive-relationship (Vispute, n.d.)

Waraich, S. B., & Sharma, R. (n.d.). Management education and entrepreneurship. *AIMA Journal of Management & Research*, 6(4/4). https://apps.aima.in/ejournal\_new/articlespdf/drsushmitabwaraich\_ article. pdf

Zhao, Y., Xian-Zhou, Z., Shi, J., Du, H., Marjerison, R. K., & Peng, C. (n.d.). Impact of entrepreneurship education in colleges and universities on entrepreneurial entry and performance. *Ekonomska Istrazivanja-economic Research*, 35(1), 6165–6184. https://doi.org/10.1080/1331677x.2022.2048189

#### EXPLORING THE COMPETITION-PROFITABILITY RELATIONSHIP IN INDIAN BANKING INDUSTRY

Tarun Kumar Ray<sup>1</sup> & Abhijit Sinha<sup>2</sup>

## ABSTRACT

The main objective of financial sector reform in India in the early 1990s was to invite more competition. Consequently, with the entry of private and foreign banks, the competitive banking environment witnessed widespread changes like new technology, new products and services, new business practices and obviously new regulatory norms to tackle the new developments. This research evaluates the impact of competition in the banking industry on the profitability of Indian banks. Using annual data of twelve public sector and nineteen private sector banks for the period 2013 to 2022, the researchers investigate the effect of competition on banking profitability. Competition is measured by Lerner index, whereas financial performance is measured by Net Interest Margin (NIM). The results of the study indicate that there is a strong effect of competition of banking profitability during the study period.

Keywords: Financial Sector Reforms, Competition, Concentration, Profitability.

# INTRODUCTION

The Indian banking sector, till the 1990s, was under strict regulation with many restrictions. The sector was mainly confined to a few public sector banks because of the then government policy due to which competition was very limited. In the interest of the nation as a whole, it was once believed that some of the specific economic sectors should receive a greater share of institutional credit. Research findings also clearly demonstrate that the banks play a critical role in boosting an economy's growth. The banking industry contributes significantly by, among other things, improving the socioeconomic standing of those having low income, pushing the agricultural and several sectors, fostering the growth of the infrastructure sector, and producing jobs. Growth in the banking industry contributes positively to economic expansion and progress (Cole *et al.*, 2008).

The banking sector has seen a number of changes over the years, all of which have been directed towards the expansion of the various sectors, which will eventually result in the expansion of the economy through increased provision of institutional credit. Public sector banks were nationalized in an effort to increase the sector's concentration and efficiency. In order to increase the profitability of the

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banks, various expansionary measures were adopted by the banks. Creation of new assets was targeted by many banks. The accumulation of non-performing loans was caused by the banks' apparent relative efficiency in creating assets as opposed to their regular revenue generation. Afterwards, the Government of India expanded the reach of public sector banks in the early 1980s by implementing the second round of nationalization which consequently increased the credit flow to the housing sector, rural artisans and village development (Tannan, 2004). Thus, with the dual objectives of widening financial markets and increasing the pace of economic growth, the government adopted the financial liberalization programme. Following that, during the first part of the 1990s, the government initiated financial liberalization, which impacted many service providers within this industry, including insurance, mutual funds, and banks.

A broad spectrum of fee-based services were offered, entrance barriers were lowered, more private and foreign banks were permitted to enter the market, branch opening limitations were loosened, deposit interest rate ceilings were decreased, and more. The objective of these changes was to increase the productivity, efficiency, and competitiveness of the Indian banking industry. The industry has seen numerous changes in the twenty-first century, affecting every level of socioeconomic status. This study investigates the effect of competition on the financial performance of banks. Two studies, one by Prasad and Ghosh (2007) and the other by Rakshit and Bardhan (2019), have examined the impact of competition. Investigating the competitiveness of Indian banking, the contributions make the claim that since the financial sector deregulated, competition has been more intense inside the Indian banking system. Concerns have been expressed concerning the effects of deregulation and increased competition on maintaining financial stability (Sarkar, 2016). So, the research is conducted keeping this observation in mind.

# LITERATURE REVIEW

Several research studies have made comments on the issue of performance and competition in banking in India and globe. According to Sufian (2009), credit risk significantly and favorably impacts Chinese banks' profitability. According to the study, inflation and economic expansion come before improving bank profitability in China. Competition in the Chinese banking industry from 2003 to 2013 has been investigated by Tan and Floros (2012). The study indicated that the non-interest market demonstrated a higher degree of competition with the deposit and loan markets, which in consequence impacted banking profitability. The present profitability had been affected later by the commercial banks' profitability. Taxation, overhead expenses, worker productivity, and inflation were found to be the primary factors influencing Chinese banks' profitability. In the study on commercial banks conducted in Bangladesh between 2013 and 2017, the factors influencing the

profitability of banks have been looked at by Islam and Rana (2019). Return on equity was a result of impact of capital strength and earnings. The GDP, interest rate, and inflation rate, among other macroeconomic variables, had little effect on banking profitability.

Another independent investigation by Hasen (2020) on Bangladesh's commercial banks revealed some intriguing findings. It highlighted how positively the banking liquidity, profit margin affected banks profitability. Horabet et al. (2021) used the Generalized Method of Moments (GMM) methodology to conduct research using data from 2009 to 2018 in Europe. They found that, in contrast to the positive effects of credit, lending rates, capitalization percentage, and concentration rate, the inflation rate and non-government spending had significant negative effect performance. Iskandar et al (2019) examined the banking sector of Malaysia which showed the key importance of productivity, liquidity risk and credit risk. Rakshit (2022) utilized GMM on data set of Indian banking industry and found that more competition led to reduced interest rates margin, which ultimately affected banking productivity. Ganesan (2001) highlighted the effect of interest cost, deposits per branch, credit percentage, priority sector advances' share and interest income. Moreover, banking performance was influenced positively by financial development but negatively by inflation rate. Bodla and Verma (2006) in their study established the significant effect of spread percentage, non-interest income, working costs ratio, profit per employee and NPAs. In the same tone, Nagaraju (2013) found the key impact of both bank-specific and macroeconomic components on banking profitability.

## **OBJECTIVES AND HYPOTHESES OF THE STUDY**

The study aims to:

- a. To understand the connection between competition and performance in the Indian banking industry.
- b. To find how bank-specific factors impact banking profitability.

Accordingly, the null hypotheses of the study are:

H<sub>0</sub>: There is no significant effect of completion on banking performance.

H<sub>o</sub>: There is no significant of bank-specific factors on performance of banks.

## DATA AND METHODOLOGY

The present research is based on study of 12 Indian public sector and 19 private sector banks for the ten-year period from 2013 to 2022. The researchers commenced with the consideration of 21 Indian private sector and 46 foreign banks. However, the investigators did not consider two private sector and entire section of foreign

sector banks due to data inadequacy. The investigators use the financial database package, 'CMIE Prowess,' annual reports of selected banks and RBI website extract data that is related to competition and bank-specific variables. Banking competition and performance are measured by Lerner index and net interest margin (NIM) respectively. The exploratory study that uses 310 company-year data points for determining the results for the study applies panel regression for arriving at the results of this cause-and-effect relationship.

The panel regression model that is estimated takes the following form:

NIM it =  $\alpha 0 + \alpha 1$  Lerner\_index it +  $\alpha 2$  GNPA\_ratio it +  $\alpha 3$  Loan\_asset\_ratio it +  $\alpha 4$  Size\_TA it +  $\alpha 5$  Funding\_rate it +  $\alpha 6$  Div it, where

*NIM* is the measure of bank performance. It is the acronym of net interest margin.

Lerner\_index is the measure for banking competition

GNPA\_ratio represents the extent of poor performing loans

Loan\_asset\_ratio represents the credit strength.

*Size\_TA* represents the bank size. The log transformed value of total asset is taken for consideration.

*Funding\_rate* stands for the overall rate of raising funds, whereas Div stands for bank diversification.

## ANALYSIS AND FINDINGS

This section of the study presents the findings related to different sections of the study that ranges from understanding the basic diagnosis to understand whether the basic data is fit for analysis and then to find the effect of different variables on bank performance. Before analyzing panel data, Variance Inflation Factor (VIF) is looked at to determine the potential of individual explanatory variable to contribute to the multicollinearity issue (Wooldridge, 2015). VIF values for the different variables are shown in Table 1.

VIF
2.06
1.69
1.57
1.52
1.31
1.25

Table 1: Result of Multicollinearity

Source: Computed by researchers Dependent variable: Net interest margin Since, the VIF value of less than 10 indicates no multi-collinearity among the variables (Chatterjee & Simonoff, 2013), it is, therefore, clear that this research does not suffer from this problem. Next, the test for heteroscedasticity is done using the Breusch-Pagan / Cook-Weisberg test. The null hypothesis of the Breusch-Pagan / Cook-Weisberg test is:

#### H<sub>0</sub>: The residuals have constant variance

The test shows that the computed value of  $\chi^2$  is 3.01 with a p-value of 0.0826. This results in the acceptance of null hypothesis at 5% level of significance. Hence, the overall data is homoscedastic as the residuals are found to have constant variance. The next test is the Levin-Lin-Chu (2002) unit root test that examines whether the data is non-stationary or not. The null hypothesis of the unit root test is that the Panels contain unit root, in contrast to the alternative hypothesis that Panels are stationary.

The LLC unit root test results are presented in Table 2 below.

Variables	p-value
GNPA_ratio	0.000
Lerner_index	0.000
Loan_asset_ratio	0.000
Size_TA	0.000
Funding_Rate	0.000
Div	0.000

Table 2: Levin-Lin-Chu Unit Root test

Source: Computed by researchers

The above table shows the rejection of null hypothesis at 1% level which therefore concludes that the panels are stationary.

### **Panel Regression Model**

Three regression models namely, Ordinary Least Square (OLS), Fixed Effect (FE) Model, and Random Effect (RE) Model are considered of which the best fit model is considered. The Ordinary Least Square model is a widely used linear regression model specially used for modeling continuous variables. In this study, the OLS model estimated the relationship between banking performance which is the explained variable and market power of banks along with other firm-specific variables like asset quality, credit strength, size, funding rate and diversification. The result of OLS is given in Table 3.

Variables	Coef.	t-value
GNPA_ratio	-0.0061	-0.28
Lerner_index	65.630***	3.58
Loan_asset_ratio	0.032*	1.80
Size_TA	-0.017	-0.21

Table 3: Ordinary Least Square Regression Model

Variables	Coef.	t-value		
Funding_Rate	0.025	0.19		
Div	0.077***	5.45		
Cons	-0.618	-0.34		
No. of Observations = 274				
F(6, 267) = 15.55; Prob. > F = 0.000				
R-squared = 0.2590; Adj. R-squared = 0.2423				

Source: Computed by researchers \*\*\* 1% significance level; \*\* 5% significance level

The significant positive effect of market power of banks (coefficient value of 65.630) effect on banking performance at 1% level of significance. In other words, with the increasing market power, there is a higher positive impact on the profitability margin. In addition to this, the extent of diversification by the banks has a significant positive impact (coefficient value being 0.077) at 1% level of significance on banking profitability. The variable that proxies for the credit strength has positive impact on profitability margin which is significant at 10% level (t=1.80, p=0.073). The other variables like asset quality represented by the GNPA ratio (t=-0.28, p=0.777), size (t=-0.21, p=0.835) and funding rate (t=0.19, p=0.847) have insignificant effect on net interest margin of the Indian banks.

### Analysis based on Fixed Effect (FE) Model Regression

In this study, to observe the heterogeneity of the group-specific variables and to measure their impact on profitability, the FE model is used whose result is given in Table 4.

Tuble 4. Tixed Effect Reglession Woder				
Variables	Coef.	t-value		
GNPA_ratio	-0.005	-0.71		
Lerner_index	62.542***	7.80		
Loan_asset_ratio	0.009	1.49		
Size_TA	-0.250***	-4.85		
Funding_Rate	-0.330***	-7.13		
Div	0.0001	0.03		
Cons	6.618	7.64		
sigma_u	0.354			
sigma_e	0.406			
F (6, 215) = 28.71; Prob. > F = 0.000				
Source: Computed by researchers				

\*\*\*significant at 1% level, \*\*significant at 5% level

The above regression model shows that the F-statistic is 28.71 and the p-value tends to zero. Thus, the FE model is considered to be better than the OLS. The panel regression analysis reveals that there are three variables viz. Lerner index, size and funding rate which are all significant at 1% level. The market power of the individual banks has a positive impact on their profitability in contrast to the

negative impact posed by size and funding rate. The other variables like asset quality and diversification by banks are found to have an insignificant effect on banking performance.

### Analysis based on Random Effect (RE) Model Regression

The RE model considers both time-varying and time-invariant panel data and assumes that the individual effects are randomly distributed and uncorrelated with the different independent and control variables. The LM test is considered for this test. The result of the Random Effect model is given in Table 5.

Tuble 5. Turidoni Eneer Tegression Moder				
Variables	Coef.	z-value	p> z	
gnpa_ratio	-0.011	-1.55	0.122	
Lerner_index	70.499***	10.09	0.000	
Loan_asset_ratio	0.007	0.006	0.197	
sz_ta	-0.224***	0.037	0.000	
Funding_rate	-0.313***	-0.313	0.000	
Div	0.001	0.001	0.655	
_cons	6.205	6.205	0.000	
sigma_u	0.251			
sigma_e	0.406			
Rho 0.276		(fraction of variance due to u_i)		
Wald $\chi^2$ (6) = 256.74; Prob. > $\chi^2$ = 0.000				

Table - 5: Random Effect Regression Model

Source: Computed by researchers \*\*\* 1% level significance level, \*\* 5% level significance level

It can be observed from the computations that the Wald  $\chi^2$  (6) value is 256.74 with a p-value tending to zero. Thus, the random effect model is a better fitting model compared to the OLS regression in the given circumstance. The Lerner index which stands for the banking market power is found to have a significant effect on banking performance as measured through profitability. This result is in contrast to the significant negative impact of size and funding rate.

### Choosing the final model

Finally, to arrive at the final model application for the study, the Hausman test is applied. The null hypothesis of the test is:

 $H_0$ : The coefficients of both the FE and RE models are consistent.

The alternative hypothesis:

 $H_1$ : The coefficients of only the FE model are consistent.

Hence, the rejection of the null hypothesis leads to the acceptance of the FE model. According to the test, the chi-squared value has a p-value tending to zero. Thus, the FE model is the most fitting model and the conclusions are drawn accordingly.

### CONCLUSION

The researchers not only consider the competition level in the banking industry but also assess its effect on profitability. For the purpose, Lerner index is considered to proxy for competition and net interest margin is representative of the banking industry performance. The analysis of data for the study period shows that market power of banks have a very strong effect on profitability. Hence, for banking sustainability in this era of competition, creating market power is a very important tool to combat competitive strategies. Interestingly, the accepted model also shows that the effect of size and funding rate is significantly negative on profitability. Thus, the government should rethink on whether to go for mergers of banks at such a rapid pace. Moreover, through better fund management, banks should try to curtail the funding rate. The overall findings will be an interesting one for banks as strategic modification is imminent for sustenance of these institutions in this competitive market.

#### REFERENCES

Alexion, C, & Sofoklis, V. (2009) Determinants of Bank Profitability Evidence from Greek Banking Sector. *Economic Annals*, 54, 93-118.

Badola, B.S. & Verma, R. (2006) Determinants of Profitability of Banks of India: A multivariate analysis. *Delhi Business Review*, 7, 79-88.

Bhatia, A., Mahajan, P. & Chander, S. (2012). Determinants of Profitability of Private Sector Banks in India. *Journal of Commerce and Accounting Research*, 1, 14.

Cole, Rebel A., Foriborz Moshirian, and Qiongbing Wu. 2008. Bank Stock Returns and Economic Growth. *Journal of Banking and Finance*, 32, 995–1007

Ganesan, P. (2001). Determinants of Profits and Profitability of Public Sector Banks in India: A Profit Function Approach. *Journal of Financial Management and Analysis*, 14, 27-37

Horobet, A., Radulescu, M., Belascu, L., & Dita, S. M. (2021). Determinants of bank profitability in CEE countries: Evidence from GMM panel data estimates. *Journal of Risk and Financial Management*, 14, 307. doi: 10.3390/jrfm14070307

Hosen M. Z. (2020). Internal factors influencing the profitability of commercial banks in Bangladesh. *International Journal of Economics and Financial Research*, 6, 192–200. 10.32861/ ijefr.67.192.200

Iskandar, A. S., Yahya, N. C., & Wahid, Z. A. (2019). Determinants of Commercial Banks' Profitability in Malaysia. *Journal of Entrepreneurial Business*, 7, 27–39. DOI: 10.17687/JEB.0701.03

7. Islam, S., and Rana, M. S. (2019). Determinants of Bank Profitability: Evidence from Commercial Banks of Bangladesh. *Journal of Asia Business Studies*, 9, 174–183. DOI: 10.18488/ journal.1006.2019.92.174.183

Nagaraju, T. (2013) The Determinants of Commercial Banks Profitability in India. https://ssrn.com/abstract=2544838.

Prasad, A., & S. Ghosh (2007). Competition in Indian Banking: An Empirical Evaluation. IMF Working Paper No. 141, Washington D.C, IMF

Prasad, A., & Ghosh, S. (2007). Competition in Indian banking: An empirical evaluation. South Asia Economic Journal, 8, 265–84.

Rakshit, B., & Bardhan, S. (2019). Bank competition and its determinants: Evidence from Indian banking. *International Journal of the Economics of Business*, 26(2), 283–313.

Sufian, F. (2009). Determinants of Bank Profitability in a Developing Economy: Empirical evidence from China Banking Sector. *Journal of Asia Pacific Business*, 10, 281-307.

Tan,Y., & Floros, C. (2012) Bank Profitability and Inflation: The case of China. *Journal of Economic Studies*, 39, 675-696.

Committee on Financial Sector Reforms, 1991

Committee on Financial Sector Reforms, 1998

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PSGRKCW is located on an environmentally pristine campus in Coimbatore. The college offers undergraduate, graduate and doctoral degrees in arts, science, commerce, computer science, and management. With a student strength of nearly 8,000 each year, PSGRKCW has come to symbolize academic excellence in Southern India.PSGRKCW is an autonomous college affiliated to Bharathiar University, a UGC-certified 'College of Excellence', is also ranked 6<sup>th</sup> among colleges in India by the National Institutional Ranking Framework (NIRF) in 2021 and 2022, and accredited by the National Assessment and Accreditation Council (NAAC) 4th Cycle with 3.71 CGPA A++ Grade. PSGRKCW offers 35 UG, 14 PG, 3 PG Diploma and MPhil/PhD in 13 disciplines. The college has global collaborative agreements with Oregon State University, San Diego State University & Toledo University, USA; Universiti Malaysia Pahang, Malaysia; and Nottingham Trent University, UK.

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