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INDEX

CRITERION: 3.3.2

3.3.2 Number of research papers per teachers in the Journals notified on UGC website during the year 2023-2024

2023-2024

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**Institutional data in the prescribed Format
(Data Template)**

3.3.2.1 Number of research papers per teachers in the Journals notified on UGC website during the year 2023-2024

Year	2023-2024
Number	15



3.3.2 Number of research papers per teachers in the Journals notified on UGC website during the year 2023-2024

S. No	Title of paper	Name of the author/s	Department of the teacher	Name of journal	Year of publication	ISSN number	Link to the recognition in UGC enlistment of the Journal
1	Strategic SHRM - in IT sector	Dr. R. Jeevarekha Mrs. C. Subha	Department of MBA	European Chemical Bulletin 2023, 12 (S2)	23-Jul	2410 – 2421	https://www.eurchembull.com/issue-content/strategic-shrm-in-it-sector-10355
2	A scenic analysis of Neuro Marketing	Dr.R. Karthika M.Surya	Department of MBA	South India Journal Of Social Sciences UGC Care Approved, Group I, Bi-Annual Journal	Jun-23	ISSN: 0972 – 8945	
3	The antecedents of out shopping behaviour in hospital industry	Dr. Hemalatha Dr. R.Karthika	Department of MBA	Shodhak	2023	ISSN:03 02-9832	
4	Marketing of religious tourism in navagraha temples at kumbakonam	Dr. Hemalatha S.Senthil Kumar	Department of MBA	Shodhak	2023	ISSN:03 02-9833	
5	A study on Human rights and WTO law	N. Kayalvizhi Iris Rinaldi F S. Kiruthiga	Department of MBA	Shodhak	2023	ISSN:03 02-9834	



6	Structural equation modelling for measuring the success of outcome based education (OBE) in higher education institutions	Dr. M. Hemalatha Dr. R. Karthika	Department of MBA	Shodhak	2023	ISSN:03 02-9835	
7	A business model to measure the quality of higher educations	Dr. M. Hemalatha M. Surya	Department of MBA	Shodhak	2023	ISSN:03 02-9836	
8	A study on working capital management in Tamilnadu cement corporation	Mrs.C. Subha	Department of MBA	Shodhak	2023	ISSN:03 02-9837	
9	A study on investors attitudes toward investment avenues with special reference to Perabmalur district	Dr. R. Karthika Mrs. S. Kayalvizhi S. Prasanna	Department of MBA	Shodhak	2023	ISSN:03 02-9838	
10	Tools and applications in mobile marketing	Dr. R. Jeevarekha Mrs. C. Subha	Department of MBA	Shodhak	2023	ISSN:03 02-9839	
11	Role of Teacher Collaboration in Improving Student Outcomes in Private Institutions	Dr. R. Suganya	Department of MBA	UGC Care	2023	ISSN: 2581-3986	



12	Mathematical Analysis Of A Prey-Predator System Using New Approach To Homotopy Perturbation Method	Dr. R. Suganya	Department of MBA	SCOPUS Journals	2023	ISSN:1533-9211	
13	Awareness Among College Students on Government Schemes for Entrepreneurship Development in Bangalore	Dr. R. Karthika	Department of MBA	SCOPUS, DBLP, WTI Frankfurt eG, zbMATH, SCImago, Springer	May, 2024	978-3-031-49544-1 (eBook)	https://doi.org/10.1007/978-3-031-49544-1
14	A study on the significance of Women's participation in Higher Education in India	Mr. S. Senthil Kumar	Department of MBA	JUNIKHYAT JOURNAL , Vol.13 Issue 11 No.04, Peer reviewed and UGC care	Nov,2023	ISSN : 2278-4632	
15	Towards Quality Assurance In Higher Education: Examining The Interplay Between Outcome-Based Education, Accreditation Processes, And Institutional Rankings	Dr.S.Saravanan1*, S.Senthilkumar2, Dr.D.Barani3, Dr. Divya Bansal4, Dr.Lekshmy.P. L5, N.Ashokkumar6	Department of MBA	Educational Theroy and Practice	2024, 30(5),689-6906	6906 ISSN: 2148-2403	Doi 10.53555/kuey.v30i5.4058





STRATEGIC SHRM- IN IT SECTOR

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Abstract

The IT sector is a rapidly growing industry, and in order to keep up with the pace, organizations need to have a competent and reliable workforce. In this context, the role of human resource management (HRM) in the IT sector becomes critical. The Society for Human Resource Management (SHRM) is an important organization that provides guidance and support to HR professionals in the IT sector. The SHRM's focus is on providing resources and tools for employee recruitment, retention, training and development, compensation, and benefits management. In addition, the SHRM provides guidance on managing employee relations, workforce diversity, and legal compliance in the IT sector. This paper explores the significance of the SHRM in the IT sector and highlights the challenges and opportunities faced by HR professionals in this field. The paper also discusses the key HR practices that can help organizations in the IT sector to attract, develop, and retain a talented workforce, thereby driving business success.

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1. Introduction

The IT sector is a highly competitive industry, with companies vying for top talent and striving to stay ahead of technological advancements. As a result, the role of human resource management (HRM) in the IT sector has become increasingly important, as companies seek to attract, retain, and develop a skilled and motivated workforce. The Society for Human Resource Management (SHRM) is a leading organization that provides resources and support to HR professionals in the IT sector, helping them to navigate the challenges and opportunities of managing people in this fast-paced industry. Through its research, publications, and networking events, the SHRM offers a wealth of information on best practices in HRM, as well as insights into emerging trends and issues affecting the IT workforce. The SHRM's focus on areas such as talent acquisition, performance management, employee engagement, and workplace culture can be especially valuable for IT companies looking to build a competitive edge and foster a high-performing organizational culture. However, as with any industry, the IT sector also faces its own unique challenges and HRM issues, such as skills shortages, remote work arrangements, and diversity and inclusion initiatives, which the SHRM can help organizations to navigate effectively.

Overall, the SHRM plays a crucial role in supporting HR professionals in the IT sector, providing them with the tools and knowledge they need to manage their workforce effectively and drive business success in a rapidly changing environment. The IT sector is a rapidly evolving industry, and organizations operating in this field face unique challenges when it comes to managing their human resources. With the shortage of skilled workers and intense competition for top talent, HR professionals in the IT sector need to be proactive and strategic in their approach to

attracting and retaining employees. The Society for Human Resource Management (SHRM) is a global organization that provides guidance and support to HR professionals across industries, including the IT sector.

The SHRM offers a range of resources, training, and certification programs to help HR professionals stay up-to-date on the latest HR practices and industry trends. In the IT sector, the role of HR is crucial in ensuring that organizations have a skilled and motivated workforce that can keep up with the demands of the industry. HR professionals in the IT sector need to be well-versed in areas such as employee engagement, talent development, performance management, and compensation and benefits. Through its focus on research, education, and advocacy, the SHRM is helping to shape the future of HR in the IT sector and supporting the development of best practices that can drive business success.

Review of Literature

Kavanagh and Johnson (2018) argue that HRM is critical to the success of IT organizations, given the intense competition for skilled talent and the rapid pace of technological change. They suggest that HR professionals in the IT sector need to be strategic and proactive in their approach to talent management, focusing on areas such as workforce planning, talent acquisition, training and development, and employee engagement.

Gubbi and colleagues (2013) note that the success of organizations in the IT sector depends heavily on their ability to attract, develop, and retain talented employees. The authors argue that HR practices that are aligned with business strategy are critical to achieving this goal.

In their study of the Indian IT sector,

Thite and colleagues (2015) highlight the importance of employee engagement and empowerment in promoting organizational performance. They suggest that HR practices that focus on these areas can lead

to improved employee retention and productivity.

A study by Haider and colleagues (2017) explores the role of HR practices in promoting innovation in the IT sector. The authors find that HR practices that encourage knowledge sharing, collaboration, and risk-taking are key drivers of innovation in this field.

In their review of the literature on HR practices in the IT sector,

Varma and Budhwar (2016) identify several key areas where HR can make a significant impact. These include recruitment and selection, training and development, performance management, and employee engagement.

A study by Jyoti and Sharma (2016) focuses on the role of HR in managing workforce diversity in the IT sector. The authors argue that HR practices that promote diversity and inclusivity can lead to improved employee morale and a more innovative and productive workforce. In their review of the challenges faced by HR professionals in the IT sector, Rehman and colleagues (2018) identify issues such as talent shortages, high turnover rates, and changing skill requirements. The authors suggest that HR practices that prioritize employee development and engagement can help organizations address these challenges.

A study by Wasti and colleagues (2018) explores the impact of HR practices on employee well-being in the IT sector. The authors find that HR practices that prioritize work-life balance, job security, and employee recognition can lead to improved employee satisfaction and well-being.

Becker et al. (2016) highlight the importance of HR analytics in the IT sector, noting that data-driven decision making is becoming increasingly critical in a rapidly changing industry. They suggest that HR professionals need to be able to use data to identify workforce trends, assess the impact of HR programs, and

make evidence-based decisions that can help drive business success.

Dhar et al. (2019) emphasize the importance of employee engagement in the IT sector, given the significant impact that engaged employees can have on productivity, innovation, and customer satisfaction. They argue that HR professionals in the IT sector need to focus on creating a positive work culture, promoting work-life balance, and providing opportunities for career growth and development in order to foster employee engagement.

Jansen et al. (2016) highlight the challenges of managing a diverse workforce in the IT sector, given the industry's global reach and the diverse backgrounds and cultures of its employees. They suggest that HR professionals need to be able to navigate the complexities of cross-cultural communication, understand the needs and expectations of employees from different backgrounds, and create an inclusive work environment that can support diversity and innovation.

Tonelli et al. (2017) argue that HRM is critical to managing the risks associated with outsourcing in the IT sector, given the potential impact that outsourcing can have on employee morale, customer satisfaction, and the overall reputation of the organization. They suggest that HR professionals need to be able to manage the challenges of outsourcing, such as cultural differences, language barriers, and different legal frameworks, while also ensuring that employees are engaged, motivated, and productive.

"The Importance of Human Resource Management in the IT Industry," HR expert Susan Heathfield emphasizes the need for organizations in the IT sector to prioritize HR management to remain competitive. She highlights the role of SHRM in providing guidance and support to HR professionals in the industry.

Objectives of Studying SHRM in IT Sector

To provide a platform for HR professionals and researchers to share best practices, insights, and case studies related to the management of human resources in the IT sector.

To explore the latest trends and challenges in HR management in the IT sector, including issues related to talent acquisition, retention, training, development, and compensation.

To examine the role of HR in promoting innovation, diversity, and sustainability in the IT sector, and to highlight best practices in these areas.

To showcase research and empirical studies that can help organizations in the IT sector to better understand the relationship between HR practices and business performance.

To highlight the role of the Society for Human Resource Management (SHRM) in supporting HR professionals in the IT sector and to provide insights into the resources and tools available through the SHRM.

To identify emerging issues and opportunities in HR management in the IT sector, and to provide guidance and recommendations for HR professionals looking to stay ahead of the curve.

To foster collaboration and knowledge-sharing among HR professionals, academics, and other stakeholders in the IT sector, with a focus on promoting best practices and driving business success.

Conceptual Framework of SHRM

1. Idealized Model for SHRM

Strategic Human Resource Management (SHRM) involves aligning an organization's human resource practices with its strategic goals and objectives. In the IT sector, there are various idealized models of SHRM that organizations can adopt to improve their performance and gain a competitive advantage. Here are a few examples:

The Resource-Based View (RBV)

Model: This model is based on the idea that a company's employees and their skills and knowledge are valuable resources that can help the company gain a competitive advantage. In the IT sector, companies can use this model by investing in employee training and development programs to enhance their skills and knowledge. This can help the company to create a workforce that is better equipped to handle complex IT projects and drive innovation.



The High-Performance Work System (HPWS) Model: This model emphasizes the importance of creating a work environment that fosters employee

engagement and high performance. In the IT sector, companies can use this model by providing their employees with a supportive work environment that

promotes collaboration, creativity, and continuous learning. This can help to boost employee morale and productivity, leading to improved business outcomes.

The Best Practices Model: This model suggests that there are certain HR practices that are universally effective and can be adopted by any organization to improve its performance. In the IT sector, some of the best practices include recruitment and selection of top talent, training and development programs, performance management, and employee engagement initiatives. By adopting these practices, companies can create a high-performing workforce and achieve better business results.

The Configurational Model: This model emphasizes the importance of aligning an organization's HR practices with its business strategy. In the IT sector, companies can use this model by identifying the key competencies and skills required for their IT projects and then designing HR practices that support the development of those competencies and skills. This can help to ensure that the company has the right people with the right skills to deliver on its strategic objectives. **The Strategic HRM Model:** This model emphasizes the need for HR practices to be aligned with business strategy in order to maximize organizational performance. In the IT sector, HR professionals can use this model to develop HR strategies that are closely linked to the organization's goals and priorities, such as expanding into new markets, developing new products or services, or enhancing customer experience.

The Talent Management Model: This model focuses on the identification, development, and retention of key employees who are critical to the success

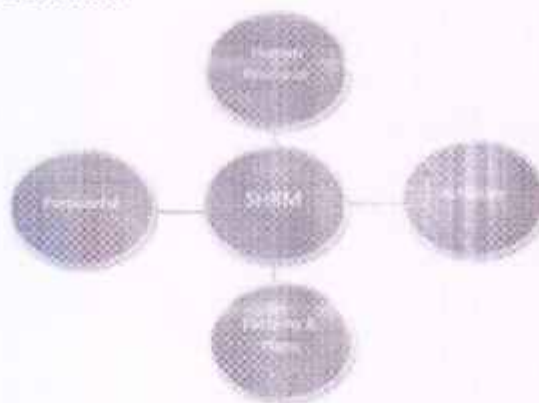
of the organization. In the IT sector, where there is intense competition for top talent, this model can be particularly useful for HR professionals looking to build a skilled and motivated workforce that can help the organization stay ahead of the curve.

The High-Performance Work System Model: This model emphasizes the importance of creating a work environment that supports and encourages high levels of employee performance. In the IT sector, where innovation and agility are key drivers of success, this model can be especially relevant for HR professionals looking to foster a culture of creativity, collaboration, and continuous improvement.

The Diversity and Inclusion Model: This model highlights the importance of creating a workplace that is diverse, equitable, and inclusive, where employees from different backgrounds can feel valued and respected. In the IT sector, where diversity of thought and perspective can drive innovation and problem-solving, this model can be particularly valuable for HR professionals looking to attract and retain a diverse and talented workforce.

The Employee Engagement Model: This model focuses on creating a work environment that fosters high levels of employee engagement and satisfaction, leading to improved performance and reduced turnover. In the IT sector, where burnout and stress can be common, this model can be useful for HR professionals looking to create a supportive and engaging workplace that promotes employee well-being and productivity. These idealized models of SHRM can serve as a framework for IT organizations to develop effective HR strategies that align with their business goals and improve their overall performance.

Dimensions of Effective SHRM



Strategic Human Resource Management (SHRM) involves aligning an organization's human resource practices with its strategic goals and objectives. In the IT sector, there are several dimensions to consider when developing SHRM strategies. Here are some key dimensions to consider:

Talent Management: Talent management involves identifying, attracting, developing, and retaining the right people to meet the organization's strategic objectives. In the IT sector, talent management is crucial because technology is constantly evolving, and companies need employees who can keep up with the latest trends and developments.

Training and Development: Training and development programs are essential for building and maintaining a skilled workforce. In the IT sector, technology is constantly changing, and companies must ensure that their employees have the necessary skills to keep up with the latest trends and developments.

Recruitment and Selection: Recruitment and selection involve identifying and hiring the right people to meet the organization's needs. In the IT sector, companies must be able to identify and attract top talent to meet their staffing needs.

Performance Management: Performance management involves setting goals, monitoring performance, providing feedback, and recognizing and rewarding good performance. In the IT sector, performance management is essential for ensuring that employees are meeting their performance goals and contributing to the organization's overall success.

Diversity and Inclusion: Diversity and inclusion involve creating a work environment that respects and values differences and promotes equal opportunities for all employees. In the IT sector, diversity and inclusion are important for fostering innovation and creativity, as different perspectives can lead to new ideas and solutions.

Employee Engagement: Employee engagement involves creating a work environment that fosters employee motivation, commitment, and satisfaction. In the IT sector, employee engagement is crucial for attracting and retaining top talent and improving overall business outcomes.

Compensation and Benefits: Compensation and benefits are important for attracting and retaining employees. In the IT sector, companies must ensure that their compensation packages are competitive and offer attractive benefits to attract and retain top talent.

Talent Acquisition: The first dimension of SHRM in the IT sector is talent acquisition, which involves identifying and recruiting top talent with the right skills and experience. This requires an understanding of the specific skills and knowledge required for the IT roles, and a strategic approach to sourcing and hiring the best candidates.

Talent Management: Once the talent is acquired, the next dimension of SHRM in the IT sector is talent management, which involves developing and retaining the best talent through performance management, training, and development programs. This requires a focus on continuous learning and development to keep up with the rapidly evolving IT landscape.

Workforce Planning: Workforce planning is another critical dimension of SHRM in the IT sector. This involves understanding the organization's long-term strategic objectives and identifying the workforce needs required to achieve those objectives. Workforce planning can help to ensure that the right people with the right skills are in place to support the organization's growth.

Compensation and Rewards: The IT industry is highly competitive, and it is essential to offer competitive compensation and rewards to attract and retain top talent. This dimension of SHRM involves designing and implementing a compensation and rewards system that aligns with the company's strategic objectives and provides incentives for employees to perform at their best.

Diversity and Inclusion: The IT industry is diverse, and it is essential to foster an inclusive work environment that encourages diversity and equity. This dimension of SHRM involves developing policies and practices that promote diversity and inclusion and addressing any

barriers that may prevent employees from reaching their full potential.

Employee Engagement: Employee engagement is a crucial dimension of SHRM in the IT sector. Engaged employees are more productive, committed, and motivated to contribute to the organization's success. This requires a focus on employee well-being, creating a supportive work environment, and providing opportunities for employees to contribute and grow.

By considering these various dimensions of SHRM in the IT sector, organizations can develop effective HR strategies that align with their business goals and improve their overall performance.

Why SHRM is Important in IT Sector

SHRM, or Strategic Human Resource Management, is important in the IT sector for a few reasons:

IT talent is highly specialized and in-demand: IT talent is highly sought after, and there is a shortage of skilled workers in the IT industry. This means that companies need to be strategic in their HR efforts to attract and retain top talent.

Technology is constantly evolving: Technology is constantly changing, and this requires IT professionals to continuously update their skills and knowledge. SHRM can help companies develop training and development programs to ensure that their employees stay up-to-date with the latest technologies and trends.

Employee engagement is critical: Employee engagement is a critical factor in the success of any organization. IT professionals, in particular, may be highly motivated by challenging work, opportunities for professional development, and a strong sense of purpose. SHRM can help companies develop strategies to keep their employees engaged and motivated.



Succession planning is important: In the IT sector, there may be key employees with highly specialized skills that are critical to the success of the organization. Succession planning is important to ensure that the organization can continue to operate smoothly in the event that key employees leave the company.

In summary, SHRM is important in the IT sector because it helps companies attract and retain top talent, stay up-to-date with the latest technologies and trends, keep employees engaged and motivated, and plan for the future.

2. Research Methodology in SHRM

Surveys: Surveys are a commonly used research methodology in SHRM research. Surveys can be used to collect data from a large number of participants, and can provide insights into the opinions and experiences of employees and managers in the IT industry. Surveys can be designed to measure factors such as employee engagement, job satisfaction, and perceptions of HR practices.

Case studies: Case studies can be used to explore the experiences of specific organizations in the IT sector. Case studies can provide detailed insights into the HR practices of these organizations, and can be used to identify best practices and areas for improvement. Case studies can involve interviews with employees and managers,

and can also include analysis of HR documents and other organizational materials.

Experimental research: Experimental research involves manipulating one or more variables to test the effects on outcomes such as employee performance or job satisfaction. Experimental research can be used to test the effectiveness of different HR practices in the IT sector. For example, an experiment could be designed to test the impact of a particular training program on employee performance or the effectiveness of a new hiring practice in attracting top talent.

Secondary data analysis: Secondary data analysis involves analysing existing data that has been collected for other purposes. Secondary data sources in the IT sector may include government statistics, industry reports, and HR data from large organizations. Secondary data analysis can be used to identify trends and patterns in HR practices in the IT sector, and can also be used to compare the HR practices of different organizations.

Interviews: Interviews can be used to collect in-depth qualitative data from employees and managers in the IT sector. Interviews can be structured or unstructured, and can be used to explore a wide range of topics related to SHRM, such as employee engagement, job satisfaction, and perceptions of HR

practices. Interviews can provide rich data that can be used to inform HR strategy and policy in the IT sector.

Experimental research: Experimental research can be used to test the effectiveness of different SHRM practices in the IT sector. For example, an experiment could be designed to test the impact of a training and development program on employee performance, or the impact of a diversity and inclusion initiative on employee engagement.

Content analysis: Content analysis can be used to analyse the content of job postings, employee handbooks, and other HR-related documents to identify the SHRM practices that organizations in the IT sector are prioritizing. This can provide insights into emerging trends and areas of focus in the field of SHRM.

Quantitative analysis: Quantitative analysis can be used to analyse large datasets related to SHRM practices and their impact on employee and business performance in the IT sector. This can involve statistical analysis of survey data, financial data, and other relevant data sources.

Approaches in SHRM in IT Sector

There are several approaches to Strategic Human Resource Management (SHRM) that companies can use to align their HR strategies with their overall business objectives. Here are a few examples:

Resource-Based View (RBV) Approach: The RBV approach focuses on identifying and developing the unique resources and capabilities that give an organization a competitive advantage. HR strategies are developed based on an analysis of the company's existing resources, and the goal is to maximize the value of those resources through effective management practices.

Best Practices Approach: The Best Practices approach involves identifying the HR practices that have been most effective in other companies, and then implementing those practices in one's own organization. This approach assumes that there are certain HR practices that are universally effective, and that companies can achieve better results by following these practices.

Contingency Approach: The Contingency approach recognizes that there is no "one-size-fits-all" approach to HR management, and that the best HR strategies will depend on the specific context of the organization. This approach involves identifying the unique circumstances of the organization, such as its industry, culture, and size, and developing HR strategies that are tailored to those circumstances.

High-Performance Work System (HPWS) Approach: The HPWS approach focuses on creating a work environment that encourages high levels of employee engagement and productivity. HR strategies are designed to support employee development, provide opportunities for involvement and participation, and promote a culture of continuous improvement.

Integrative Approach: The Integrative approach involves combining elements of the other approaches into a single, comprehensive HR strategy. This approach recognizes that effective HR management requires a multi-faceted approach that takes into account the unique circumstances of the organization, the available resources and capabilities, and the best practices that have been proven to be effective in other companies.

Overall, the approach to SHRM that a company chooses will depend on its specific circumstances and objectives. A good approach should align the company's HR strategies with its overall business objectives, while also taking into account the needs and capabilities of its employees.

Findings & Suggestions

Here are some possible findings and suggestions related to Strategic Human Resource Management (SHRM) in the IT sector:

Findings:

IT talent is in high demand: The IT sector is facing a shortage of skilled workers, which means that companies must be strategic in their HR efforts to attract and retain top talent.

Employee engagement is critical: IT professionals may be highly motivated by challenging work, opportunities for professional development, and a strong sense of purpose. Employee engagement is a critical factor in the success of any organization, and this is particularly true in the IT sector.

Training and development are important: Technology is constantly evolving, and this requires IT professionals to continuously update their skills and knowledge. Companies that invest in training and development programs are more likely to attract and retain top talent.

Diversity and inclusion are important: Diversity and inclusion are important factors in creating a positive work environment and promoting innovation. Companies that prioritize diversity and inclusion in their HR strategies are more likely to attract and retain top talent.

Suggestions:

Develop a comprehensive SHRM strategy: Companies should develop a comprehensive SHRM strategy that aligns their HR practices with their overall business objectives. This strategy should take into account the unique circumstances of the organization and the needs of its employees.

Offer competitive compensation and benefits: To attract and retain top talent, companies must offer competitive compensation and benefits packages. This may include flexible work arrangements, healthcare benefits, retirement plans, and other incentives.

Invest in training and development: Companies should invest in training and development programs to ensure that their employees stay up-to-date with the latest technologies and trends. This may include on-the-job training, workshops, conferences, and other forms of professional development.

Foster a culture of innovation: To promote innovation, companies should create a work environment that encourages experimentation, creativity, and collaboration. This may include initiatives such as hackathons, brainstorming sessions, and cross-functional teams.

Prioritize diversity and inclusion: To create a positive work environment and promote innovation, companies should prioritize diversity and inclusion in their HR strategies. This may include initiatives such as employee resource groups, diversity training, and inclusive hiring practices.

Overall, the findings and suggestions related to SHRM in the IT sector highlight the importance of developing a comprehensive HR strategy that takes into account the unique circumstances of the organization and the needs of its employees. By prioritizing employee engagement, training and development, diversity and inclusion, and other key factors, companies can attract and retain top talent and promote innovation and growth.

3. Conclusion

In conclusion, Strategic Human Resource Management (SHRM) is a critical component of success in the IT sector. As

a result of the high demand for skilled workers in this industry, companies must be strategic in their HR efforts to attract and retain top talent. The findings related to SHRM in the IT sector highlight the importance of employee engagement, training and development, diversity and inclusion, and other key factors in creating a positive work environment and promoting innovation. The suggestions provided for SHRM in the IT sector include developing a comprehensive SHRM strategy, offering competitive compensation and benefits, investing in training and development, fostering a culture of innovation, and prioritizing diversity and inclusion. By implementing these strategies, companies can create a work environment that attracts and retains top talent, promotes innovation and growth, and helps them stay ahead in this rapidly evolving industry. In conclusion, Strategic Human Resource Management (SHRM) is a critical element of success for companies operating in the IT sector. The IT sector is facing a shortage of skilled workers, and companies must be strategic in their HR efforts to attract and retain top talent. This requires a comprehensive SHRM strategy that aligns HR practices with overall business objectives, taking into account the unique circumstances of the organization and the needs of its employees.

The findings related to SHRM in the IT sector highlight the importance of employee engagement, training and development, diversity and inclusion, and fostering a culture of innovation. These are all key factors in attracting and retaining top talent, promoting innovation, and driving growth and success in the IT sector. To compete in the fast-paced and ever-changing world of technology, companies must prioritize SHRM as a core element of their business strategy. By developing a comprehensive SHRM strategy that aligns HR practices with business objectives and the needs of employees, companies can attract and

retain top talent, promote innovation, and position themselves for long-term success in the IT sector.

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A SCENIC ANALYSIS OF NEURO MARKETING

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ABSTRACT

In recent years, both the academic literature and the business world have begun to take notice of the emerging area of neuromarketing, which employs brain research in a managerial setting. Consequently, the current paper's goal is to assess how neuromarketing techniques compare to traditional marketing inputs in order to fully comprehend consumer behavior. The current article evaluates the impact of neuromarketing on several pertinent marketing inputs after evaluating both internal and external responses to examine brain activities. The findings show that neuromarketing is linked to having a significant impact on consumer purchasing decisions as marketing inputs. Hence, neuromarketing may be regarded as a notable advancement in the study of brain and behavior.

Keywords: Neuromarketing, Consumer Behavior

INTRODUCTION

Knowledge is active in nature; issues brought on by the development of market interactions regularly affect fashionable marketing. Neuromarketing, a relatively young scientific topic, is the result of fusing neuroscience with marketing. This new field, which benefits from technological advancements, goes beyond conventional quantitative and qualitative research tools by concentrating on consumers' brain responses to marketing stimuli.. (Anil Kumar, 2019)

Since the discipline of neuromarketing first emerged in 2002, its significance has increased and its notoriety among businesses, marketers, and advertisers is expanding. (Morin, 2011). Although the topic is receiving more and more attention in the psychology and medical fields, this essay will focus on how neuromarketing can be used to understand human behavior and its advantages and disadvantages in the commercial world. (Sanfey, Loewenstein, McClure, & Cohen, 2006; Khushaba, Wise, Kodagoda, Louviere, Kahn & Townsend, 2013; Hubert, 2010)

Neuromarketing merges the disciplines of neuroscience, psychology, and marketing with the use of scientific understanding. In order to learn more about a variety of topics, including memory, learning, the effects of the internal and external environment on the brain's processes, and information processing. The transdisciplinary nature of marketing tactics and customer behavior can be shown through neuroscientific research. The comprehensive understanding of complex information processing and mental processes provided by neuroscience has a significant impact on marketing management. These processes include selection, decision-making, reasoning, attitude, emotion, and memory. It significantly influences many different areas, including segmentation, targeting, positioning, brand equity, brand loyalty, etc. The aforementioned factors also have an impact on consumer perception and choice.(Prof. Aradhita Deb-2021)

Keywords: Neuromarketing, Marketing research, Consumer behavior, fMRI, EEG,

REVIEW OF LITERATURE:

Consumer beliefs and behaviors may be influenced by cognitive processes and unconscious emotional factors. Consumers exhibit different types of emotional reactions from one another since they have distinct behavioral preferences. The consumer's choice and preference might be impacted by interactions with various events and stimuli. When calculating the cognitive load, different consumption patterns and the impact of various stimulus kinds may be crucial considerations. In some circumstances, words can generate a higher cognitive load and elicit emotional responses



than images and videos, it can be seen by distinguishing distinct cognitive and general emotions between the channels via which subjects are presented to consumers. Many emotions affect memory, focus, perception, and movement (either physiologically or linguistically). The possibility of a favorable connection between the development of mental images and memory can also be assumed (Michael et al., 2019). The question of whether neuroscience has the predicted impact on various industry elements can also come up. The time and expense involved with applying neuroscience to markets is an issue. After applying neuroscience, it can take quite some time to determine the answer to a particular situation, and in most circumstances, the expense of doing so may not seem financially realistic (McDowell & Dick, 2013). It may not be possible to resolve complex problems or use neuroscience in everyday situations and situations in a market. Consequently, it may be of concern that neuromarketing should be more financially practical by lowering labour and overhead costs in order to compete with traditional marketing tactics from the perspective of the commercial market (Spence, 2019).

One of the best methods for marketers to reach their target audience with a message about a product or service is through advertising. But in order to effectively and efficiently convey the message, the content and linguistic components of advertisements need to be arranged and presented in the best possible way. It is clear that the use of psychological, linguistic, and most significantly, neuroscience in the commercial, can improve the effectiveness and efficiency of the storytelling. Marketers must improve the efficiency of the advertisement's content by skillfully integrating neuroscience aspects in order to leave a lasting impression on their target audience. (Kılıç & Yolbulan Okan, 2020).

CONSUMER BUYING BEHAVIOR MEASUREMENT METHODS TO MEASURE BRAIN ACTIVITIES

Every consumer behavior is a function of the brain, an organ in and of itself. It's interesting to note that although it makes up only 2% of the entire body, it consumes 20% of human energy. Another crucial truth is that, in order to maintain the calm condition, the human brain uses around 80% of its capacity unconsciously, leaving only 20% available for conscious thought. (Morin, 2011).

The "reptilian brain," which is primarily responsible for this function, was utilised to monitor the surroundings for potential threats because humans evolved as hunters and collectors who were trying to survive. This section is capable of processing all visual stimuli without the need of the visual cortex, which is the biological justification for why people prefer experiences over explanations and visuals over words in general (Morin, 2011). Therefore, it should be evident that the translation and interpretation of its activity is a highly complex process given that the brain is one of the most complex and interwoven biological organs currently in existence and has a large number of interconnected cells (Purves, Fitzpatrick, Augustine, & Katz, 2008).

There are still high expectations in the ability of neuromarketing to observe and analyze the entire brain in order to find out new, unpredictable results that give new insights into the field of neuroscience, even though it is known that the purchasing decision does not represent a binary social response, meaning that one cannot predict that with using a certain advertisement one will make the purchase for sure. (Lee, & Kacen, 2008; Hubert, & Kenning, 2008).

STRATEGIES FOR NEURO MARKETING

Understanding the relationship between marketing efforts and consumer responses is the main objective of adopting neuromarketing approaches (Kumlehn, 2011). By doing this, it is anticipated that in addition to the subjective self-assessment techniques, an objective view of brain activity can be evaluated (Hubert, & Kenning, 2008). Body language, facial coding, empathy design, eye tracking, fMRI, EEG, MEG, galvanic skin conductance, and heart rate are just a few of the techniques used in this field; the most sophisticated techniques are EEG (electroencephalography) and fMRI (functional Magnetic Resonance Imaging) brain imaging. (Kamich, 2011).

Outside reflexes is the umbrella term for a group of techniques that have been around for a while, including body language, empathetic design, face coding, and eye tracking. These techniques were the most effective in the past for gathering information on the consumer. The technology was not as



advanced. These techniques specifically ignore the brain's internal processes in favour of observing external reflexes that originate there, without taking into account the observations of the subjects being studied. When one focuses, these so-called "outside reflexes" are easily visible. In other words, it can be thought of as a technique that, based on biological responses, can ascertain what a person's brain genuinely thinks, feels, or acts, regardless of what that person says or even while that person remains silent. A lie detector is a well-known illustration of a device that measures external reactions. This device responds to the sweat glands on the back of the hand, which naturally produce sweat as a physiologic response to emotional stimuli. However, as there are other possible causes for the emotional response than lying, this method cannot be completely regarded as dependable. (Postma, 2012).

The "Inner Reflexes" method incorporates cutting-edge techniques that were first created for the medical field. With this strategy, one is peering inside the cerebral self. EEG or fMRI scans, which will be described in more detail in the coming sections, are used to properly perform this. The applicability is a key distinction between the input/output model and internal reflexes: Neuromarketing is about branding associations, packaging, and advertising in internal reactions. Although no one is being encouraged to make a purchase, it is possible to ascertain what someone feels while watching an advertising and whether the desire may be identified neurologically. Under the input/output model, neuromarketing focuses more on the actual purchasing behaviors. (Postma, 2012).

EEG

Electroencephalography, or EEG, stands for an electrical reproduction of brain activity (Postma, 2012). Although though the EEG technique is an older one, it is still regarded as a suitable way to monitor changes in the electrical field in certain brain areas (Ariely, & Berns, 2010; Morin, 2011; Camerer, Loewenstein, & Prelec, 2004; Madan, 2010). It uses a number of electrodes attached to the skull that detect electronic signals that signify the brain's current activity (Postma, 2012; Morin, 2012; Ariely, & Berns, 2010; Madan, 2010). Typically, just a brief recording of 20 to 40 minutes can be done. Neurons are the cells that control all of our cognitive reactions. As a result, each human has more than 100 billion neurons at their disposal, which are connected by trillions of synapses (Morin, 2011). These neurons have electrically conducting extensions that are relatively lengthy. As a result, when a specific stimulus, such as advertising, is presented, neurons fire an electric current that the EEG can detect (Morin, 2011). In other words, if several neurons are "communicating" to a certain location, more energy is generated than usual, which can finally be detected by the scalp EEG. If neurological understanding is applied to that, identified electricity can be connected to certain functional parts of the brain, providing pertinent marketing insights (Postma, 2012). In practise, a researcher need just put on a helmet or cap with electrodes linked to the person's head, show some goods or services, and then measure and record the person's brain activity as a function of how attractive they are (Morin, 2011; Postma, 2012). As EEG's temporal resolution is measured in milliseconds, this approach has the benefit of being extremely accurate in terms of time. Hence, brief brain activity is readily detectable. (Ariely, & Berns, 2010; Camerer, Loewenstein, & Prelec, 2004). Also, it is important to keep in mind that the EEG measurement apparatus is lightweight and portable, making the measurement process easier (Madan, 2010). Hence, the subject of the study is not under stress throughout the measurement because he or she can move around freely, even if the test will primarily take place in a lab (Postma, 2012). This method has the disadvantage that employing EEG will record unwanted electrical brain activity that one does not wish to measure (Postma, 2012). Due to this, the spatial resolution is only roughly accurate to one centimetre, which can be improved by increasing the number of electrodes affixed to the skull. (Ariely, & Berns, 2010; Camerer, Loewenstein, & Prelec, 2004; Morin, 2011). At the end, these annoyances must be filtered out. Combining the EEG method and the eye tracking method is another useful approach because more precise recordings of brain activity may be made (Postma, 2012).

fMRI



The name "MRI" stands for "magnetic resonance imaging," and it basically refers to a device that uses magnets to create an anatomical model of the brain (Postma, 2012). Blood oxygen levels are measured using an MRI scanner, which can indicate greater brain activity in specific regions (Ariely, & Berns, 2010). The method of measurement is as follows: The magnetic field can detect the amount of blood oxygen in the brain. Because the brain needs oxygen to function, if neuronal activity in a particular area of the brain is increasing, the oxygen-rich blood also increases. The so-called "fMRI," where the "f" stands for "functional" and denotes that what is being viewed is a process rather than a snapshot, is a subfield of MRI and the newest and most popular brain imaging technique in the field of neuromarketing used to investigate changes in brain activation (Postma, 2012; Dimoka et al., 2012; Madan, 2010; Vecchiato et al., 2011). The technique was practicalized in the 1990s and allowed for new scientific understanding of the human brain, which had previously been somewhat of a mystery (Kumlehn, 2011). Simply said, it shows how oxygen-rich blood travels to various parts of the brain in order to study human behaviour (Eser, Isin, & Tolon, 2011). fMRI is a non-invasive neuroimaging technique that is mostly applied in marketing. Since it allows for the isolation of certain neuronal networks linked to specific brain activities, interest in it has expanded significantly over the past several years (Postma, 2012; Wilson, Gaines, & Hill, 2008). The exceedingly complex task of isolating the brain system is only made possible by today's cutting-edge technology. (Kumlehn, 2011). Hence, during an fMRI experiment, a person's brain is first scanned in the "rest condition," or when no stimulus is being delivered (Raichle, & Mintun, 2006).

In "The Pepsi Paradox," a well-known instance of this approach in action, participants were originally given the opportunity to complete a blind taste test in which they were given two glasses of soda without knowing whether they contained Coke or Pepsi. The majority of participants in this blind taste test felt that the Pepsi drink was the better option. Once participants learned about the ingredients brand, the "thinking section" of the brain is identified as being activated since the participant is reminded of the eye-catching Coke ads, which ultimately prompts him to select the Coke drink as the more delectable beverage. (Gang, Lin, Qi, & Yan, 2012, May).

CONCLUSION:

The word "neuromarketing" itself refers to the use of imaging technology to uncover the hitherto undiscovered "secrets" of the human brain (Kampakoglou, 2012). This may be affected by the fact that arguments and modes of reasoning are no longer seen to be logical, and that academics are paying more attention to how emotions and unconscious processes affect human behaviour (Bechara, & Damasio, 2005; Camerer, Loewenstein, & Prelec, 2005; Oehler, & Reisch, 2008). Also, it has been determined that the prefrontal cortex is the most significant part of the brain in terms of the study of neuromarketing because it controls both conscious and emotional processes (Vecchiato et al., 2011). Therefore, it can be claimed that the emergence of neuromarketing produces a win-win situation for both marketers and consumers at the same time if the ethical side is taken care of by carrying out neuromarketing operations in an ethically proper way. Internal knowledge can be gained by marketers, improving product commercialisation and providing customers with more specialised items (Kenning, & Linzmayer, 2011; Ariely, & Berns, 2010; Lee, Broderick, & Chamberlain, 2007; Madan, 2010).

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THE ANTECEDENTS OF OUTSHOPPING BEHAVIOUR IN HOSPITAL INDUSTRY

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Abstract

This paper provides a view on Out shopping behaviour in health care. The consumer behaviour is highly dynamic and is influenced by various factors. It focused on choices of hospitals outside a consumer's area of residence and how their perception helps to influence their choice of that hospital. So, we have discussed conceptual model using 24 independent variable and Outshopping Behaviour. Therefore, the behaviour is observed only with respect to cases of hospital admissions. The selection method of the healthcare provider from another city and what are the factors such as Doctor Service, Service Deliver, Hospital Environment, Affordable Pricing that influencing the people to choose the healthcare provider. For this research the data have been collected from 150 patients using descriptive research by means of questionnaire various city have been analysed. Customer narratives to conceptualize the Urbanization of a service that is based on interpersonal communication and intimacy and, therefore, traditionally bounded to a regional service area.

Keywords: Outshopping Behaviour, Hospital, Conceptual Framework

INTRODUCTION

Outshopping involves residents of an urban or rural area travelling to another area, usually to larger retail developments to buy different types of goods (Jarratt, 1998, Broekemier and Burkink, 2004). Tuli and Mookerjee (2004) have explained outshopping in the Indian rural context as "consumer shopping outside his or her local retail space for goods or services which are also available within the village retail setup", whereas Varshney and Goyal (2006) have defined outshopping as "movement of consumers from downtown to retail centers of suburbs or adjoining larger cities". The phenomenon of "out of town" shopping is important not only from the managerial perspective, but also from planning and policy framing perspective. Hence, research into consumer outshopping behaviour is also significant. A handful of insights from research help both urban local planners to develop appropriate shopping facilities to serve communities and retailers to develop outshopping-specific strategy. (Pate et al., 2015).

Healthcare organizations that aim to improve quality must focus on their waiting times. Waiting time in clinics and hospitals is an important factor leading to patient dissatisfaction and creating discomfort for the patient. This condition seems to exist around the world. A report of the Institute of Medicine says that patients must be seen within 30 minutes after their arrival to a hospital/clinic.³ This is not the case in most developing countries, where patients experience an average waiting time of 2- 4 hours before seeing a doctor.⁴⁻⁶ Even developed countries are having trouble dealing with this issue.⁷ The duration of waiting times seems to vary between countries and also among different regions of the same country. (Sriram and Noochpoung, 2018).

Urban areas in developing countries generally show better health indicators and have more facilities than rural areas. Urban populations tend to benefit from higher economic status, enjoy better living conditions and better access to health care. The limited number of studies looking at access to health care in urban



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Kerala leaves many questions unanswered. What is the poorest's situation with regard to access to health care? Do urban dwellers, regardless of their economic status, choose equally between the range of public and private providers? Which urban characteristics are more conducive to access to care? This study aims to analyse the determinant of utilization of outpatient (i.e. care receive on an ambulatory basis, not involving spending a night in hospital) health care services in urban Kerala and their implications with regard to access to care. (Levesque et al., 2006).

Patient satisfaction is one of the most important parameters of quality and is an indicator of how the patient has perceived qualitative aspects of care. In the perspective of health care, patient satisfaction has been defined as a combination of experiences, expectations, and needs perceived and also as the patient's subjective evaluation of their cognitive and emotional reactions as a result of the interaction between their expectations regarding ideal care and their perceptions of the actual care. Patient satisfaction depends on many factors such as quality of clinical services provided, attitude and behaviour of doctors and other health-care staff, availability of prescribed medications, cost of these services, hospital infrastructure, physical comfort, emotional support, and respect for patient preferences. Patient satisfaction regarding the attitude of providers is also expected to affect treatment outcome and prognosis. (Nilakantam et al., 2021). This study is about patient preferences for hospitals reveal a behavioural pattern similar to the retail shopping industry. Patients sometimes prefer to patronize hospitals that are located away from their area of residency. This behaviour is identified as outshopping. Outshoppers are individuals who prefer to be patients at a hospital outside the local trading area if they need to be admitted for medical services. Their preference for outside area hospitals may be based on perceptions they have about the appearance of hospitals, advertisement by local television and radio stations, word of mouth from family and friends or even their previous experiences.

REVIEW OF LITERATURE

Borders and Rohrer (2001) evaluated Rural residence and migration for specialty physician care. This article describes why rural residents migrate or travel outside their local market area for specialty physician care. Data were collected through a random mail survey of persons residing in Iowa's rural counties. The results imply that migration for specialty care is not simply a function of a low perceived availability of local specialty physicians. Managers of rural and urban health care systems may need to rethink the extent to which specialty physician services should be distributed across rural markets.

Atherly et al. (2003) Developing rural primary health care service areas: an analysis of patient migration patterns. This study explores the potential of health care service areas (HCSAs) developed from claims data as the geo-political units for the assessment of health professional needs in rural areas. HCSAs reflect consumer shopping patterns for health care and alter traditional health professional needs estimates.

Schaefer (2004) The primary purpose of this study was to begin to understand what motivates rural residents to bypass their local health care providers and facilities and travel at times great distances, to receive health care. Specifically this study was interested in why up to 50% of Anaconda, Montana residents bypass Community Hospital of Anaconda (a small rural hospital) and its associated clinics and providers.

Lee et al. (2008) explained The exploration of consumers' behaviour in choosing hospital by the application of neural network. The research applied neural network to classify consumers' behaviour in choosing hospitals. A quantitative research of questionnaire was first conducted to explore consumers' behaviour in choosing hospital also in southern Taiwan.

Veerasoontorn and Delee-Zee (2010) has explained International hospital outshopping: a staged model of push and pull factors. Patients who chose medical treatment abroad were selected to analyze the drivers of international migration in medical services. A total number of 27 international patients who traveled from developed countries to receive medical treatment at the largest hospital in Thailand were interviewed and their responses were analysed through narrative analysis.

Hemalatha et al. (2011) described A neural network model for clearance sales outshopping behaviour. This research applied a neural network model to study the clearance sales outshopping behaviour. The Gauss Newton algorithm is selected to learn the pattern of the surveyed information. This paper describes the impact of 27 input layers on five hidden layers. Then the impact of hidden layers on retail area loyalty and retail area satisfaction of the clearance sales outshoppers is obtained.

Singh and Kaur (2014) described Attributes Influencing Patients Choice of Health Care Provider: A Conjoint Analysis of Pre-Hospitalization Behaviour. They prefer to receive services at hospital about which they are generally aware and where accessibility is easy. This paper provides relative importance of factors thought to be preferred by patients while choosing a health care provider in Amritsar (Punjab) India. Implications of results for the health care providers are also discussed.

Sanders et al. (2015) examined Rural health care bypass behaviour: To assess the prevalence of rural primary care physician (PCP) bypass, a behaviour in which residents travel farther than necessary to obtain health care. To examine the role of community and non-health-care-related characteristics on bypass behaviour, and to analyze spatial bypass patterns to determine which rural communities are most affected by bypass.

Uner and Cavusgil (2020) have identified the problem is even more acute when it comes to studies of professional services such as health care organizations and hospitals. Taking advantage of Turkey's strategic location in the region, these firms have shown extraordinary entrepreneurial initiative expanding their operations beyond the home market over the past two decades. We provide an integrative discussion and offer implications for advancing knowledge and managerial practice.

RESEARCH METHODOLOGY

Research methodology simply refers to the practical "how" of any given piece of research. More specifically, it's about how are searcher systematically designs a study to ensure valid and reliable results that address the research aims and objectives. The methodology chapters should justify the design choices, by showing that the chosen methods and techniques are the best fit for the research aims and objectives, and will provide valid and reliable results. A good research methodology provides scientifically sound findings, whereas a poor methodology doesn't.

A Descriptive study tries to discover answers to the questions who, what, when, where and sometimes, how. The researcher attempts to describe or define a subject, often by creating a profile of a group of problems, people, or events. Such studies may involve the collection of data and the creation of distribution of the number of times the researcher observes a single event or characteristic (known as research variable), or they may involve relating the interaction of two or more variables. In other words, while qualitative research may also be utilised for descriptive reasons, a descriptive method of research design is typically regarded as a sort of quantitative research. To guarantee that the results are legitimate and dependable, the study design should be properly constructed. The size of the sample chosen for the study is 150.

A sample technique used for this study is Simple Random Sampling. Simple random sampling method, each item in the population has an equal and likely possibility of getting selected in the sample (for example, each member in a group is marked with a specific number). Since the selection of item completely depends on the possibility, therefore this method is called "Method of chance Selection". Also, the sample size is large, and the item is selected randomly. Thus it is known as "Representative Sampling".

CONCLUSION

Research on patient preferences for hospitals reveal a behavioural pattern similar to the retail shopping industry. Patients sometimes prefer to visit hospitals that are located away from their area of residency. This behaviour is identified as outshopping. Outshoppers are individuals who prefer to be patients at a hospital outside the local trading area in which they need to be admitted for medical services. Their preference for outside area hospitals may be based on perceptions they have about the appearance of hospitals, advertisement by local

television and radio stations, word of mouth from family and friends or even their previous experiences.

It focused on choices of hospitals outside a consumer's area of residence and how their perception help to influence their choice of that hospital. Patient satisfaction with the healthcare provided by doctors is of great significance. Thus, it is important to identify weaknesses in system to aid improvement through the patient's eyes.

An increasing number of people are traveling towards urban, especially from rural to Urban, to receive medical care. While the comparative share and total volume of patient migration is still low, our study concludes that the phenomenon is capable of having potentially major consequences for national health care systems, as well as the management of hospitals. Overall, this study draws on customer narratives to conceptualize the Urbanization of a service that is based on interpersonal communication and intimacy and, therefore, traditionally bounded to a regional service area. The study of medical services for other city patients can shed light on the contextual factors of the outshopping of personal services in general. Rather than being a mere consequence of Urbanization, medical travel is demonstrating the way ahead for the management of personal services to rural customers.

We understand that customers are usually not in the state of choosing freely a healthcare provider outside their service area. Given the peculiarities of traveling a long distance to receive medical care, the narrative analysis established that the Urbanization of health services is first initiated under some kind of distress. Something must push customers out of the service area, such as unaffordability, unavailability of services or acute dissatisfaction with low service quality.

Service deficiencies in the home country lead prospective customers to look beyond their service area. With respect to medical services, patients usually spend a considerable amount of time searching and collecting information until sufficient data on service quality is amassed, allowing them to feel reassured. While public media sources are important in the evaluation, our study highlights the significance of social relationships.

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MARKETING OF RELIGIOUS TOURISM IN NAVAGRAHA TEMPLES AT KUMBAKONAM

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ABSTRACT

This paper presents a structural equation model for understanding the Religious Tourism Marketing in Navagraha temples at Kumbakonam. The study examines the impact of Religious Tourism Marketing attributes on Religious Tourism Marketing. Totally 650 Tourist were surveyed from the Kumbakonam District in Tamil Nadu. The factor such as Tourist Acquired Value, Service Evidence, Service Process, Service Content, Service Charges, Tourist Satisfaction, Service Providers and Service Place Value which will be useful for the Religious Tourism Marketing. The final results Service Evidence have the higher impact on Religious Tourism Marketing attributes. The structural equation model confirms that higher level of Religious Tourism Marketing attributes will lead to the Success of Religious Tourism Marketing. The practices of service marketing were investigated through in-depth and unstructured interviews; the identified variables were then categorized into service proportion related factors, which are then used to affect the production of tourist value through the validation of tourist satisfaction. From the finding proved that Religious Tourism Marketing attributes will lead to Religious Tourism Marketing.

Keywords: Religious Tourism, Marketing, Tourist Satisfaction.

INTRODUCTION

The mantra "Atithi Devo Bhava," a Sanskrit text derived from the Taittiriya Upanishad, says that guest is equivalent to god was initiated in 2005 to promote tourism in India, developing a sense of responsibility towards the guest of our Nation. Tourism in India has a bright future, whereas promotion and marketing have significantly promoted the beauty and heritage of the nation in different corners of the world, which is also contributing to the Indian Economy (Jaswal& S. S,2014). According to estimation, the Foreign Tourist arrival (FTAs) in India during the growth years increased at a rate of 5.2% from the previous years (Chakrabarty, 2020)

Under the Tenth Five Year Plan, the National Tourism Policy 2002 was introduced, which focused on capacity building in the hospitality sector, faster implementations of tourism project development of integrated tourism circuits, and private-public partnerships to undertake revenue-generating projects like cruises, tourists trains etc. It also realized the importance of technology and managerial talents for the development of tourism infrastructure and hence gave financial support for a study tour of India, participation in exhibitions abroad and marketing. The Tenth Five Year plan also promoted training programs in the hotel and food industries for skill-building. It also promoted adventure tourism in the Himalayas, beach tourism in the coastal areas, wellness tourism such as Ayurveda as well as shopping centers for traditional handicrafts. The Eleventh Five Year Plan allocated more funds for the development of the tourism sector, diversified the tourism marketing and promoted partnerships between the central, state government and private sector (Alok, 2020).

Tamil Nadu is astonishingly impressive in pilgrimage tourism. It has several well known religious destinations. Pilgrimages to these destinations bring enormous economic gains to local residents. The



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Tourism plays an important role in enhancing a country's soft power. It connects people and places and immerses visitors in other cultures. It also helps communicate cultural and governance attributes that make a country admirable. The success of inbound tourism is often seen as a key measurement of a nation's soft power and international rankings based on soft powers tend to use tourism as one of their measures. For example, the Portland's The Soft Power 30- A Global Ranking of Soft Power 2018 Report under its 'culture' sub-index uses measures like the annual number of international tourists visiting a country, and other indicators like the country's music industry, and sporting prowess. Perceptions of how welcoming countries are to foreigners are also used to measure success. India fails to feature among the top 30 countries with the strongest soft powers in the Portland's report. Various described as a model soft power, it would seem that India makes poor use of it. In the ranking category of 'Asia Soft Power 10', introduced for the first time in the Portland's 2018 Report, India was ranked eighth (Bhonsale 2019).

Terzidouet al(2021) Researched Although visual media are known to influence the image people have of tourism destinations worldwide, only a few studies have examined their role in the context of religious tourism. This study explores the role television (TV) news and documentaries play in religious tourists' destination image, choice, and on-site experience. Ethnographic research (31 participant observations and 38 in-depth interviews) was conducted in two organized coach trips to the sacred island of Tinos, Greece.

Shinde (2021) Researched In recent years, several religious theme parks dedicated to different faiths have materialised and gained popularity. Based on the study of Anandsagar, a religious theme park in the pilgrim-town of Shegaon in Maharashtra, India, this paper argues that religious theme parks are emerging tourist attractions that have significant implications for management of religious heritage and tourism. The qualitative data collected through interviews and participant observation is analysed using Leiper's conceptual approach of 'tourist attraction'. Developed by Shri Gajanan Maharaj Sansthan, Anandsagar is a religious-recreational landscape spread over 350 acres and includes a 55-acres lake, an island housing a spiritual centre, and a plantation of more than 50,000 trees. Tableaux, large-scale sculptures, and installations in the park display mythological and religious stories alongside attractions, such as an aquarium, mini-rail, 3500-seats amphitheatre, and a 50-acre amusement park inspired by Disneyland. Charitable donations and volunteer workforce make it affordable and inclusive.

Arora and Sharma (2022) Researched India is the place of many religions, customs and traditions. Religious events are regularly being a tourist opportunity, and there are several religious events that take place in India throughout the year. These events not only focus on the importance of people engaging in religious

events and having spiritual experience but also act as a promotional opportunity for any country.

Fanggidae and Fongo(2020). Researched The tourism development program is a strategic step taken by the government to increase local revenue. Various policies are implemented as an effort to market tourism objects and attractions. In addition, various efforts were also made to explore the potential of tourism that has not yet been exposed so that it becomes a new destination that can be marketed as a tourism product, one of which is religious tourism.

Iliev (2020) Researched The current paper aims to analyse the evolution of religious tourism and how the existing concepts, paradigms, and practices related to religious tourism have evolved and changed over time. The principal research methods used in this paper are: historical analysis, comparison, scoping, synthesising, and identifying research gaps.

Kim *et al* (2020) Researched This review study examines evolving themes in the scholarly literature on religious tourism and identifies research gaps that provide a basis for future investigations. The researchers evaluate a total of 84 studies of religion-induced tourism using content and thematic analyses. The findings show a plurality of approaches, both disciplinary and interdisciplinary, that extend to diverse methods, themes, applications, geographical foci and manifestations of the phenomenon. Understandings of religious tourism have evolved beyond pilgrimage and now encompass the meaningfulness of a destination.

Gertner (2019) Researched Harsh critics have relentless exposed myriad instances of misuse, exploitation, and misrepresentation of values, customs, rituals, and religious objects, for example, by different actors, such as designers and artists, and in myriad contexts, such as in art, entertainment, and tourism. Instead of being perceived as the appreciation or preservation of cultures, as claimed, they have been condemned as cultural appropriation. Occasionally, they are deemed offensive by members of the culture of origin.

Ozcanet *al.* (2019) Researched Religious tourism is aimed at tourists who travel to satisfy their beliefs by visiting religious centers in various countries. With its historical and cultural background, the Konya province in Turkey is an important center of religious tourism and is a starting point that introduces tourists to the rich religious and cultural history of other parts of central Anatolia. The shrine of Mevlana Jalal al-Din al-Rumi, an Islamic thinker who lived in this region in the 13th century, Çatalhöyük, the oldest settlement with sacred structures in Anatolia, and Greek Orthodox Church of AgiaEleni are located within the city borders, and this makes the Konya province a significant destination for religious tourism. In this study, a questionnaire was conducted to reveal how local people of Konya perceive religious tourism.

Verma and Sarangi (2019) Researched Extant literature on religious tourism has not extensively focused to demarcate the antecedents of tourist satisfaction and its impact on their event loyalty. This paucity of information has led the present study to develop an integrated framework that postulates the complex relationship among five latent attributes namely motivation, service quality, safety, satisfaction and event loyalty.

RESEARCH METHODOLOGY:

This research methodology deals with several data collection methods and techniques that makes researcher to make work easier and to collect valuable data from respondents. In this research researcher explained the purpose of choosing this type of method and the design for the research. In this research researcher used survey method to collect data from respondents. This method is chosen because the researcher is working on Marketing on religious tourism in Tamil Nadu that deals with their status of mind and ideas. For this, researcher has designed a questionnaire that helps to collect data which is very easy to take opinions of respondents. This method is completely deals with their own answers that there is no need of getting confusion with the data.

Descriptive research is a type of research that is used to describe the characteristics of a population. It collects data that are used to answer a wide range of what, when, and how questions pertaining to a particular population or group. Descriptive research design can use a wide variety of research methods to investigate one or more variables. It is called an observational research method as none of the variables in the study are influenced during the research process. So, the goal of all descriptive studies is to *explore* the background,

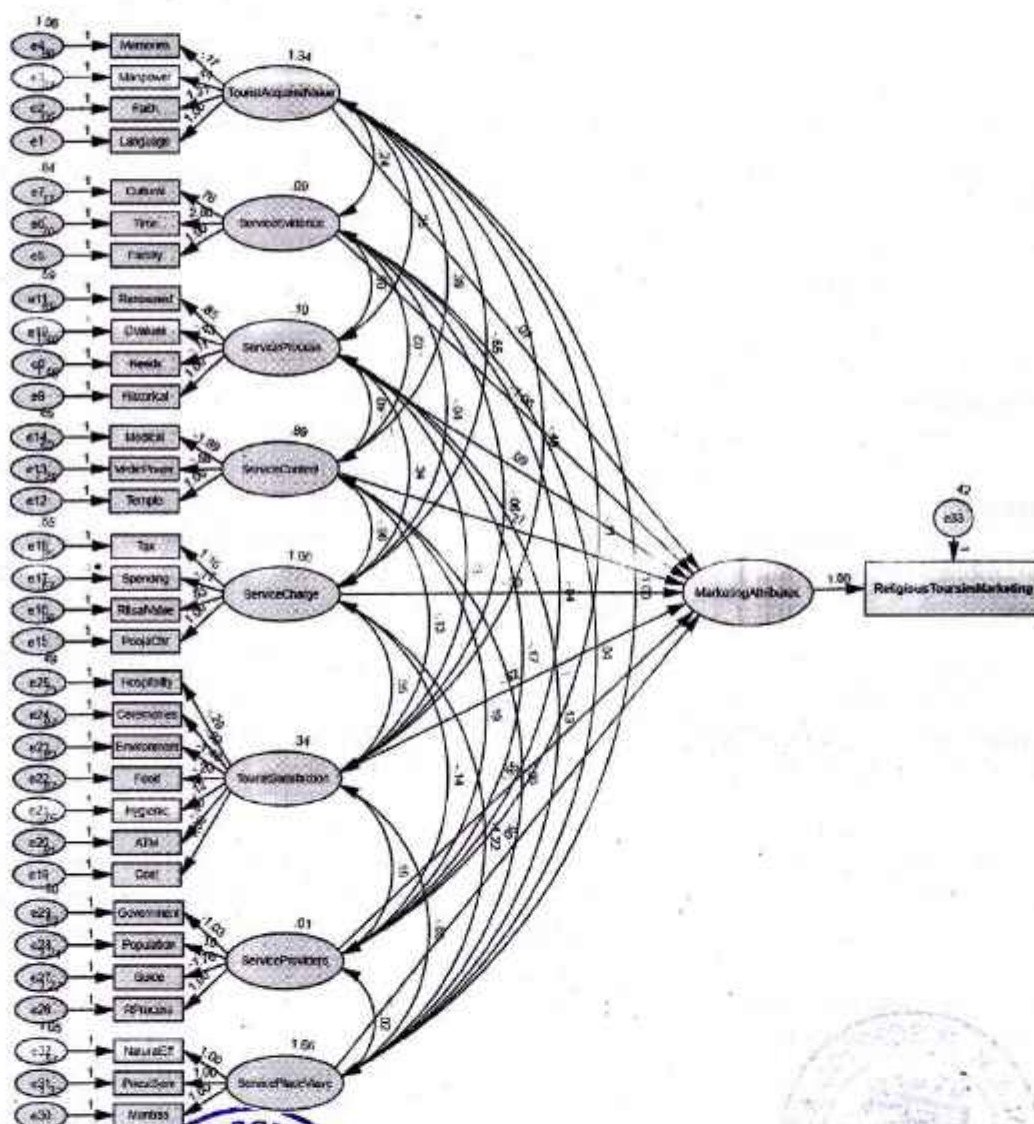
details, and existing patterns in the problem to fully understand it. In other words, preliminary research.

However, descriptive research can be both *preliminary and conclusive*. You can use the data from a descriptive study to make reports and get insights for further planning.

Simple random sampling is a type of probability sampling in which the researcher randomly selects a subset of participants from a population. Each member of the population has an equal chance of being selected. Data is then collected from as large a percentage as possible of this random subset. In this research I would chose 650 Marketing on religious tourism in Tamil Nadu from the whole population randomly for doing this research in a better way. The size of the sample chosen for the study is 650.

4.ANALYSIS:

To study the relationship among the general awareness, commitment, Marketing, assessment and measurement we have used structural equation model. Figure 1 illustrates the success of Marketing on religious tourism



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The goodness of fit index (GFI) is found to be 0.931 which confirms a good fit of 93% for the model. The adjusted goodness of fit index (AGFI) is 0.907 which takes the degrees of freedom into consideration. This indicates that this model is a good fit in measuring the Marketing on Religious tourism attributes, General, Commitment, Learning and Assessment and their dimensions. Both goodness of fit and adjusted goodness of fit are close to the recommended level of one. The root mean square residue (RMR) of 0.046 and the root mean square error of approximation (RMSEA) of 0.024 suggest that the error involved in calculating the parameter was close to the recommended level of zero. In addition, the result of chi square test is good and the fitted model is strongly recommended at 1% level.

Table 1

Dependent latent variable	Independent latent variable	Estimates
Marketing Attributes (Z)	Tourist Acquired Value (x_1)	0.074
	Service Evidence (x_2)	-1.056
	Services Process (x_3)	0.088
	Services content (x_4)	-0.273
	Services charge (x_5)	-0.297
	Tourist Satisfaction (x_6)	-0.625
	Services Provider (x_7)	-0.545
	Services place value (x_8)	0.048

Z is the estimated Marketing attributes

Similarly, when other independent latent variables are held constant, if tourism marketing increases the Tourist Acquired Value by one unit, there will be a 0.074 unit increase in the Marketing attribute. Similarly, when other independent latent variables are held constant, if tourist marketing modifies the Service Evidence by one unit, there will be a -1.056 unit decrease in the Marketing attribute. Similarly, when other independent latent variables are held constant, a one-unit change in the Services Process will result in a 0.088-unit increase in the Marketing tourist characteristic. In addition, if other independent latent variables are held constant, a one-unit change in the Services content will result in a -0.273 unit decrease in the Marketing characteristic. When all independent latent variables are held constant, a one-unit change in the Services fee will result in a -0.297-unit decrease in the Marketing characteristic. In a similar vein, when other independent latent variables are held constant, if tourism marketing increases tourist satisfaction by one unit, there will be a -0.625 unit reduction in the marketing attribute. Similarly, when other independent latent variables are held constant, if tourist marketing modifies the Services Provider by one unit, there will be a -0.545 unit drop in the Marketing attribute. The researcher determined that the Tourist Acquired Value, Services Process, and Services place value contributed more towards the Marketing attribute of the Success of Marketing on Religious Tourism. Similarly, if tourism marketing changes the Services place value by one unit, there will be 0.048 unit increase in the Marketing attribute.

Dependent latent variable	Independent latent variable	Estimates
Religious Tourism Marketing	Marketing Attributes	1.000

Similar to this, it is also apparent that, when determining the success of marketing, an increase of one unit in the marketing tourist characteristic will result in an increase of one thousand units, provided that all other independent variables remain constant.

CONCLUSION

In order to understand the causal relationship between service marketing mix components, namely service content, charges, evidence, providers, place value, and process on tourist satisfaction and tourist acquired value, a study of service proportion components on tourist satisfaction and tourist acquired values was conducted at Kumbakonam District, Tamil Nadu, India. The path model shows that the processes and service providers directly affect how satisfied visitors are. Service fees, procedures, and place value all have a large indirect impact on visitor acquisition value. Additionally, it is discovered that visitor happiness has a significant and advantageous impact on acquired value. Tourist satisfaction therefore partially mediates in relation to providers, procedure, and content. Regarding service evidence, charges, and place value, it entirely mediates. In recent years, Kumbakonam has emerged as one of India's most distinguished tourist destinations. It is a distinctive travel hub with a rich tourism history that includes devotion, entertainment, culture, and archaeology. However, pilgrimage is the main source of tourism for this location, thus the temples should put more of an emphasis on the components of service proportion. To thrill tourists and provide them the true spiritual value, service providers, local authorities, state and federal governments, and business entities work together in an integrated manner.

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HUMAN RIGHTS AND WTO LAW

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Abstract

The relationship between human rights and market freedoms is far more complex than Peterman acknowledges. Although Peterman relies heavily upon notions such as constitutionalism and democratic decision-making, the terms are ill-defined and their application unconvincing. The author engages with Peterman's contention that governments would contemplate greater international market intervention to promote social goals and challenges his interpretation of several of the leading WTO decisions. How WTO rules relate to human rights norms, and whether one takes precedence over the other in the event of conflict remains a subject of contention. This article aims to demonstrate why human rights have primacy over WTO rules. Three lines of argument are advanced here. First, trade is merely a means to advance socioeconomic ends. Should conflict arise between the two; it remains to reason that the end must trump the means. Second, while WTO rules are ordinary treaty rules of reciprocal nature, at least certain human rights norms have peremptory status. Moreover, the UN Charter is the foundation for modern human rights law. Thus, the overriding character of the UN Charter, it is argued here, accords human rights a superior value than ordinary treaty rules. Finally, their peremptory status notwithstanding, human rights are distinct in that they are not statutory norms; they are inherent, inalienable, and universal entitlements of individuals, not of states. On the contrary, human rights are primarily meant to constrain the power of the state (including its contractual power) vis-à-vis the individual. Therefore, human rights transcend the reciprocal interests of trading nations.

Keywords: Human Rights, the Relationship between the WTO and Human Rights Norms.

INTRODUCTION

Twenty years ago, on 1 January 1995, the World Trade Organization came into being, with many new WTO law treaties entering into force to supplement the 1947 General Agreement on Tariffs and Trade ('GATT').¹ From the outset, WTO law came under attack, not least by groups concerned about consequences for human rights. The disruption generated by the coalition of trade unions, environmental bodies, human rights organisations and other civil society groups caused the mid-meeting abandonment of the 1999 WTO Ministerial Meeting in Seattle.² One reason for the apprehension expressed by these groups was that, after nearly 50 years of rather lax enforcement of the GATT by a weak system of dispute panels,³ the incoming WTO dispute settlement system ('DSS') would enable much more efficient enforcement of international trade law.

4 While civil society groups warned about adverse environmental or developmental impacts of the new trade law regime, the particular focus of human rights groups at the time was the erosion of labour rights protection. This article looks at the first 20 years of the relationship between the GATT, especially its general exceptions in art XX, and human rights law; at what has transpired over that period, where the relationship now stands and what the future may hold. Part II explores what we now know about how human rights law relates to WTO law at both the normative and doctrinal levels. We draw from the literature, from the core disciplines of WTO and human rights law and from the reports of WTO panels and the Appellate Body to describe what has been known over that period about the relationship and the likely legal outcomes of future litigation, particularly to which GATT art XX might afford protection to human rights measures. To assist



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with this, two case studies are then presented: in Part III, an outwardly-directed, hypothetical human rights measure addresses labour standards, while in Part IV, an inwardly-directed, hypothetical human rights measure addresses internal racial equality. The article concludes by making some observations, in light of the foregoing, about future directions based on trends and ongoing pressures.

WHAT ARE HUMAN RIGHTS

Every person has dignity and value. One of the ways that we recognize the fundamental worth of every person is by acknowledging and respecting their human rights. Human rights are a set of principles concerned with equality and fairness. They recognize our freedom to make choices about our lives and to develop our potential as human beings. They are about living a life free from fear, harassment or discrimination.

Human rights can broadly be defined as a number of basic rights that people from around the world have agreed are essential. These include the right to life, the right to a fair trial, freedom from torture and other cruel and inhuman treatment, freedom of speech, freedom of religion, and the rights to health, education and an adequate standard of living.

These human rights are the same for all people everywhere – men and women, young and old, rich and poor, regardless of our background, where we live, what we think or what we believe. This is what makes human rights ‘universal’.

WHO HAS A RESPONSIBILITY TO PROTECT HUMAN RIGHTS

Human rights connect us to each other through a shared set of rights and responsibilities.

A person's ability to enjoy their human rights depends on other people respecting those rights. This means that human rights involve responsibility and duties towards other people and the community. Individuals have a responsibility to ensure that they exercise their rights with consideration for the rights of others. For example, when someone uses their right to freedom of speech, they should do so without interfering with someone else's right to privacy.

Governments have a particular responsibility to ensure that people are able to enjoy their rights. They are required to establish and maintain laws and services that enable people to enjoy a life in which their rights are respected and protected.

For example, the right to education says that everyone is entitled to a good education. This means that governments have an obligation to provide good quality education facilities and services to their people. Whether or not governments actually do this, it is generally accepted that this is the government's responsibility and people can call them to account if they fail to respect or protect their basic human rights.

WHY ARE HUMAN RIGHTS IMPORTANT

Values of tolerance, equality and respect can help reduce friction within society. Putting human rights ideas into practice can help us create the kind of society we want to live in.

In recent decades, there has been a tremendous growth in how we think about and apply human rights ideas. This has had many positive results - knowledge about human rights can empower individuals and offer solutions for specific problems.

Human rights are an important part of how people interact with others at all levels in society - in the family, the community, schools, the workplace, in politics and in international relations. It is vital therefore that people everywhere should strive to understand what human rights are. When people better understand human rights, it is easier for them to promote justice and the well-being of society.

THE RELATIONSHIP BETWEEN THE WTO AND HUMAN RIGHTS NORMS

Much of what has been learned during the first 20 years about WTO law and human rights comes from the literature, as there has been little related litigation in the DSS which could be described as raising human rights law directly.

David Kinley has noted that 'the addressing of human rights issues expressly is limited to a few highly disputed cases'.⁵ Even in these few cases, human rights-related concerns arose only indirectly and legal argumentation has not been based expressly on the core human rights treaties.

The most direct contact occurred in the recent European Communities — Measures Prohibiting the Importation and Marketing of Seal Products ('EC — Seal Products') dispute, where a WTO Panel adverted to two instruments within the broad scope of international human rights law as 'factual evidence'.⁶ Despite this dearth of litigation, over the same period a large literature has grown in which debates have been conducted on the many dimensions of the relationship between WTO law and human rights.

These debates have been informed by WTO jurisprudence relating to measures which, although addressing such policy areas as environmental or health protection, raise similar WTO law compliance issues to those which a challenged human rights measure would likely raise. The literature documents a variety of human rights concerns. Some involve broad or general principles of human rights law, such as the charge that there is a 'democratic deficit' in the operation of the WTO, contrary to the human rights principle of participation,⁷ or the argument that the world should pursue the human rights-based approach to development.

The literature also contains much discussion of possible outcomes should a domestic human rights measure be challenged by another WTO member as non-compliant with the GATT. Part II(A) below explores the compliance problems which trade-affecting human rights measures would be likely to encounter, particularly under GATT disciplines. The literature also addresses broader legal questions relating to real and anticipated disputes.

An important component focuses on legal questions at the level of public international law, particularly the need for greater coherence between the two bodies of international law. One strand explores the possibility of direct conflict between WTO law and human rights law and the availability of interpretive techniques to resolve differences.⁹ Another strand sets out a critique of applicable law available in disputes before the DSS.

REVIEW OF LITERATURE

Meier (2021) the recent rapid development of COVID-19 vaccines offers hopes in addressing the worst pandemic in a hundred years. However, many countries in the Global South face great difficulties in accessing vaccines, partly because of restrictive intellectual property law. These laws exacerbate both global and domestic inequalities and prevent countries from fully realizing the right to health for all their people. Commoditization of essential medicines, such as vaccines, pushes poorer countries into extreme debt and reproduces national inequalities that discriminate against marginalized groups. This article explains how a neocolonial framing of human rights and public health could contribute to addressing this systemic injustice. We envisage a human rights and global health law framework based on solidarity and international cooperation that focuses funding on long-term goals and frees access to medicines from the restrictions of intellectual property law. This would increase domestic vaccine production, acquisition and distribution capabilities in the Global South.

Harris (2015) it has been 20 years since the World Trade Organization and its law came into operation, accompanied by much speculation about its effects on member states' powers to meet their international human rights law obligations. This article sets out what has been learnt over that period about the relationship between WTO law, principally the General Agreement on Tariffs and Trade ('GATT') and human rights law. While there have been no formal disputes during this period expressly invoking the core human rights treaties, much can be deduced from WTO jurisprudence. It is evident that there is normative tension between the trade and human rights domains, both in terms of the ends they pursue and the means they adopt. We argue that mooted solutions to this tension, such as interpreting WTO law in light of human rights law or applying human rights law directly in WTO disputes, face considerable obstacles and appear to have limited prospects. More radical solutions, such as amending WTO law, would yield better results, but would be very difficult to achieve. However, WTO jurisprudence suggests that it is possible to design some human rights measures to avoid non-compliance with WTO law disciplines, so long as the measures are very carefully structured and the policy process well-executed. This article focuses on GATT obligations and on the GATT art XX

exception as a window through which human rights measures may potentially pass. To illustrate, we present two hypothetical, trade-affecting human rights measures to show both the prospects of such measures securing compliance with WTO law and how far the boundaries of compliance can be pushed within the existing paradigm.

Bilchitz (2016) the path to advances in the realm of fundamental rights is never an easy one. From the abolition of slavery to the demise of apartheid, the obstacles initially seem overwhelming. Yet, those who advocated for these changes recognized the deep flaws in the status quo and doggedly pursued principled change which eventually led to the desired results. As Abraham Lincoln famously said, 'determine that the thing can and shall be done, and then we shall find the way.

Claeys (2015) critical discussions of human rights have featured prominently in the development studies literature (Charvet & Kaczynska-Nay, 2008; Engle Merry, 1997; Rajagopal, 2015). While many social actors have utilized human rights to advance their goals, the framework has also been criticized for its tendency to individualize struggles and emphasize legal dimensions of justice, while ignoring issues of power. Despite these critiques, rights discourse continues to resonate within the food sovereignty movement—"a transnational movement of rural social organizations that work towards achieving structural changes in the global food system" (Claeys, 2015, p. 1). Some activists and academics who align themselves with this movement are working to subvert simplistic understandings of rights in favour of a more dignified, community-rooted, and radical alternative approach that captures the attention of national and international legislative bodies, while remaining useful to grassroots struggles. However, the strategic utility of this approach is contested within the food sovereignty movement.

Mitchell (2019) While the free cross-border movement of data is essential to many aspects of international trade, several countries have imposed restrictions on these data flows. The pre-internet rules of the World Trade Organization ('WTO') discipline some of these restrictions, but they are insufficient. Unfortunately, so are the electronic commerce chapters in modern preferential trade agreements. This article argues that reformed WTO rules, that take account of the policy challenges of the data-driven economy, are required. These reforms would facilitate internet openness while ensuring consumer and business trust, promote digital inclusion of developing countries and incorporate clear exceptions for legitimate domestic policies.

Dommen (2022) Whether the WTO helps or hinders the realization of human rights has been high on the popular agenda in the last couple of years. The WTO has been accused of preventing countries from setting their own health standards, of dangerously eroding citizens' interests in favour of commercial interests, and of being a veritable nightmare for certain sectors of humanity. These accusations usually end with a call to the WTO to recognize the primacy of human rights over international trade law. Such calls have not been heeded, and one might wonder whether they have even been heard.

Moon (2009) Governments have often taken steps to require businesses to source some or all of their inputs locally – that is, have imposed 'local content requirements' - in order to encourage regional development and the growth of local manufacturing industry. This paper looks at the ways in which WTO law on trade in goods now constrains the ability of developing countries to implement local content requirements and considers two issues arising. First, WTO constraints on the use of local content requirements raise general concerns about a narrowing of the range of development strategy options open to developing countries. Secondly, the constraints are not compatible with understanding about the connections between trade law, industrial development strategy options and the realization of human rights and fundamental freedoms. A human rights-based approach to development has grown, partly out of frustration at the failures of contemporary processes of globalization to resolve fundamental development problems. Much of this frustration is directed at the WTO. To become an effective contemporary institution, the WTO needs to be 'delinked' from the theory of neo-liberalism and to be replaced with a high priority on a human rights-based approach to the relationship between trade and development.

Powell (2004) Oliveira, a human rights activist and former governor of Brazil's Rio Grande do Sul state, recently charged that the world trading system has worked "a profound dehumanization and systematic

canalization of civilization.” In similar if somewhat less hyperbolic fashion, the president of the well-regarded Canadian International Centre for Human Rights and Democratic Development, Warren Allmand, tellingly contrasts globalization’s “presumed contribution to economic growth” with the reality that “hundreds of millions of people [still] are denied the basic human rights provided for by the United Nations.

Mavroidis (1998) The Marrakesh Agreement Establishing the World Trade Organization (WTO Agreement) is a “particular” international convention within the meaning of Article 38(1) (a), as are a series of annexed additional agreements and legal instruments dealing with trade in goods and services as well as intellectual property rights.² These are referred to as the “WTO Agreements” or “covered agreements.”³ Resolution of disputes concerning the substantive rights and obligations of members of the World Trade Organization under the covered agreements is governed by the Understanding on Rules and Procedures Governing the Settlement of Disputes (Dispute Settlement Understanding or DSU).⁴ In the words of Article 38(1) (a), the rules of the DSU “are expressly recognized by the contesting states” that are parties to WTO dispute settlement procedures. The fundamental source of law in the WTO is therefore the texts of the relevant covered agreements themselves.

RESEARCH METHODOLOGY

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For this, researcher has designed a questionnaire that helps to collect data which is very easy to take opinions of respondents. This method is completely deals with their own answers that there is no need of getting confusion with the data.

Descriptive research is a type of research that is used to describe the characteristics of a population. It collects data that are used to answer a wide range of what, when, and how questions pertaining to a particular population or group. A descriptive research design can use a wide variety of research methods to investigate one or more variables. It is called an observational research method as none of the variables in the study are influenced during the research process. So, the goal of all descriptive studies is to explore the background, details, and existing patterns in the problem to fully understand it. You can use the data from a descriptive study to make reports and get insights for further planning.

Simple random sampling is a type of probability sampling in which the researcher randomly selects a subset of participants from a population. Each member of the population has an equal chance of being selected. Data is then collected from as large a percentage as possible of this random subset. In this research I would choose whole population randomly for doing this research in a better way.

CONCLUSION

Human Rights are the basic rights which form the essential part of his/her development as human being. The creation of an acceptable human rights framework is often perceived as a cumbersome and expensive duty, yet it actually improves the economic situation and attractiveness of a state. If the population is provided with basic labour standards, education or health care facilities, the political climate in a country will stabilize and the productivity of the work force will improve. If a state respects the rule of law, and provides for fair and non-discriminatory administrative and court procedures without corruption, this will lead to a more attractive business environment. Hence, the respect and promotion of human rights and economic development are not contradictory, but mutually reinforcing.

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STRUCTURAL EQUATION MODELLING FOR MEASURING THE SUCCESS OF OUTCOME BASED EDUCATION(OBE) IN HIGHER EDUCATION INSTITUTIONS

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Abstract

This paper presents a structural equation model for understanding the Success of Outcome Based Education. The study examines the impact of Outcome Based Education attributes on Success of Outcome Based Education. A total of 650 faculties were surveyed from three various cities in Tamil Nadu. The factor such as General Awareness, Commitment, Learning and Teaching and assessment and Measurement which will be useful for the Success of Outcome Based Education. The final results depicts that the Learning and Teaching have the higher impact on Outcome Based Education attributes. The structural equation model confirms that higher level of Outcome Based Education attributes will lead to the Success of Outcome Based Education. From the finding proved that Outcome Based Education attributes will lead to success of outcome-based education.

Keywords: Outcome Based Education, Success, Education, Outcome Based Education attributes.

INTRODUCTION

The quality of an educational system in an input-based education is primarily determined by three parameters: inputs, processes, and outputs produced by the system. The inputs are mainly the resources such as finances, infrastructure, and other assets required for teaching and learning. The processes will dictate what needs to happen within the system and are mainly used to organize, control, and deliver curriculum to facilitate learning. The outputs are the products or results of providing such education. However, in recent years there is a paradigm shift in the above philosophy, and there is an increasing emphasis on outcome-based education (OBE), wherein, the focus is on the attainment of outcomes rather than the inputs and processes. In OBE, the inputs and processes are enablers of the outcomes and are controlled to achieve the stated outcomes. Moreover, it is necessary that the components of the curriculum, which are vital for achieving the outcomes, should be chosen to support the students to attain the expected outcomes.³ Therefore, it is essential to know if curriculum in general and the components of the curriculum in particular are facilitating in achieving the expected outcomes. This crucial information or feedback on the curriculum can be obtained by curriculum evaluation. Furthermore, another key factor in OBE is a continuous quality improvement which is accomplished by collecting evidence for the attainment of the outcomes. Therefore, it is important to have formal mechanisms put in place to evaluate the curriculum and ensure its effectiveness (Vashe *et al.*, 2023).

The development, governance, execution, and accreditation of educational programs in the education system in India through the English language would undergo radical change as a result of the NEP 2020. Through educational program accreditation, more creative courses for English language learning will be introduced, and the students will make use of them. The policy assumes that effective teachers with the skills to provide multi-based education, creative learning, and a communication approach are needed and an important part of the process of delivering outcome and skills-based education. Because of this, higher educational institutions and universities would be better equipped to implement NEP 2020's goals, receive



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high certification from the relevant accreditation bodies and regulatory agencies, and provide students with an education that is the outcome and skills-based education (Yadav and Yadav, 2023).

It is a matter of fact that today most education institutions around the world have adopted the philosophy of outcome-based education (OBE). OBE means focusing and organizing everything in an educational system around what is essential for the students to be able to do successfully at the end of their learning period. In OBE, the curriculum design begins with a clear picture of what students must be able to do, demonstrate, and need to know, and then organizing the content, teaching, and assessment to make sure the intended learning eventually happens. The outcomes are the explicit statements indicating the culminating demonstration of abilities the student will be able to demonstrate at the end of the learning period. In the context of institutions offering medical education, the competencies possessed by the doctors coming out of such schools become the outcome. Hence the curriculum should be designed in such a way that it includes the components targeted specifically at achieving such outcomes (Vashe et al., 2019).

Engineering pedagogy has a long historical background toward outcome-based education. Outcome-based education (OBE) has been used in the domain of education at various levels around the world. Since 1990, Australia and South Africa have implemented such OBE programs. Since 1994, the United States has also had an OBE program. In recent years, OBE has become a widely acknowledged ideology in academia, particularly in the subject of engineering. The OBE approach differs from the usual way of evaluating pupils solely on the basis of grades and/or ranks. Undoubtedly, the ways of teaching and learning are the two important factors of a healthy and progressive education system. These two factors are dependent on each other for creating a sustainable learning and teaching environment. For a student, it is important to identify their learning style for better outcome-based study (Kumar and Kumar, 2023).

Outcome Based Teaching and Learning is to get the teachers trained with what is to be taught to the group of students on a topic and the ability of the students after attending a lesson or topic is measured as outcome-based teaching and learning. Most of the time, the teachers have misunderstood to frame the outcome-based lessons that they have ignored the teaching outcomes which are supposed to be aimed. Dearing Report (1997), where outcomes are defined specifically to enhance teaching and assessment, and not to serve any other purpose. The essential features of OBTL intend the outcomes of the teaching for a particular course or programme. An outcome report is a statement of how we would recognize it or how well students have learned what is intended for them to learn, not a prompt list of topics for teachers to 'cover' in a curriculum. Such an outcome statement tells us what, and how well, students are able to do something that they were unable, or only partially able, to do before teaching. Talking about the topic, as in traditional teaching, is probably not the best way of doing that. Educators need to engage the students in learning activities that directly link to achieve the intended outcomes (Natarajan, 2015). This paper could also imply that important determinant of success of Outcome Based Education on the basis of Outcome Based Education attributes have been left out in the previous Outcome Based Education models. With the help of this research education institutions should improve their educating level based on Outcome Based Education to succeed in the field of education.

REVIEW OF LITERATURE

Biesta (2015) researched the widespread use of the measurement of educational outcomes in order to compare the performance of education within and across countries seems to express a real concern for the quality of education. This book argues that the focus on the measurement of educational outcomes has actually displaced questions about educational purpose.

Chetty et al. (2014) analyzed Are teachers' impacts on students' test scores ("value-added") a good measure of their quality? This question has sparked debate partly because of a lack of evidence on whether high value-added (VA) teachers improve students' long-term outcomes. Barron et al. (2014) analyzed A major hurdle in implementing project-based curricula is that they require simultaneous changes in curriculum, instruction, and assessment practices—changes that are often foreign to the students as well as the teachers. In this article, we share an approach to designing, implementing, and evaluating problem- and project-based curricula that has emerged from a long-term collaboration with teachers. Bell (2010) considered Project-Based Learning (PBL) is an innovative approach to learning that teaches a multitude of strategies critical for success in the twenty-

first century. Students drive their own learning through inquiry, as well as work collaboratively to research and create projects that reflect their knowledge.

Chang and Lee (2010) researched Project-based learning (PBL) is a highly effective means of motivating students to learn independently. However, training or encouraging teachers to practice PBL in their classrooms is challenging, especially if the educational system does not accommodate creative teaching practices. Crespo et al. (2010, April) examined in outcome-based learning, learning outcomes (knowledge, skills and competences) to be achieved by learners are in the focal point of the learning process. All educational activities and resources need to be related to the intended learning outcomes of a learning module or course, in order to assist the learners in successfully achieving the intended learning outcomes at the end of the learning experience.

Biesta (2007) researched Gert Biesta provides a critical analysis of the idea of evidence-based practice and the ways in which it has been promoted and implemented in the field of education, focusing on the tension between scientific and democratic control over educational practice and research.

Applebee et al. (2003) researched this study examines the relationships between student literacy performance and discussion-based approaches to the development of understanding in 64 middle and high school English classrooms. A series of hierarchical linear models indicated that discussion-based approaches were significantly related to spring performance, controlling for fall performance and other background variables

Davis (2003) analyzed the move to outcome-based education has been one of the most important trends in health-profession education in recent years. This paper defines outcomes and outcome-based education, describes the development of outcome-based education, identifies several different ways that outcomes have been presented, and discusses the advantages and disadvantages of the outcome-based educational approach. The implementation of outcome-based education at the University of Dundee medical school, Scotland, UK is described as a case study for curriculum planners in veterinary medical education.

Donen (1999) considered most organized physician continuing educational activities are undertaken without assessing their effects on long-term changes in physician practice patterns, patient outcomes or return on investment. Practice audit and practice self-appraisal are two activities that can be used to achieve these objectives. It is recommended that these be promoted from an educational perspective.

RESEARCH METHODOLOGY

This research methodology deals with several data collection methods and techniques that makes researcher to make work easier and to collect valuable data from respondents. In this research researcher explained the purpose of choosing this type of method and the design for the research. In this research researcher used survey method to collect data from respondents. This method is chosen because the researcher is working on success of outcome-based education (OBE) that deals with their status of mind and ideas.

For this, researcher has designed a questionnaire that helps to collect data which is very easy to take opinions of respondents. This method is completely deals with their own answers that there is no need of getting confusion with the data.

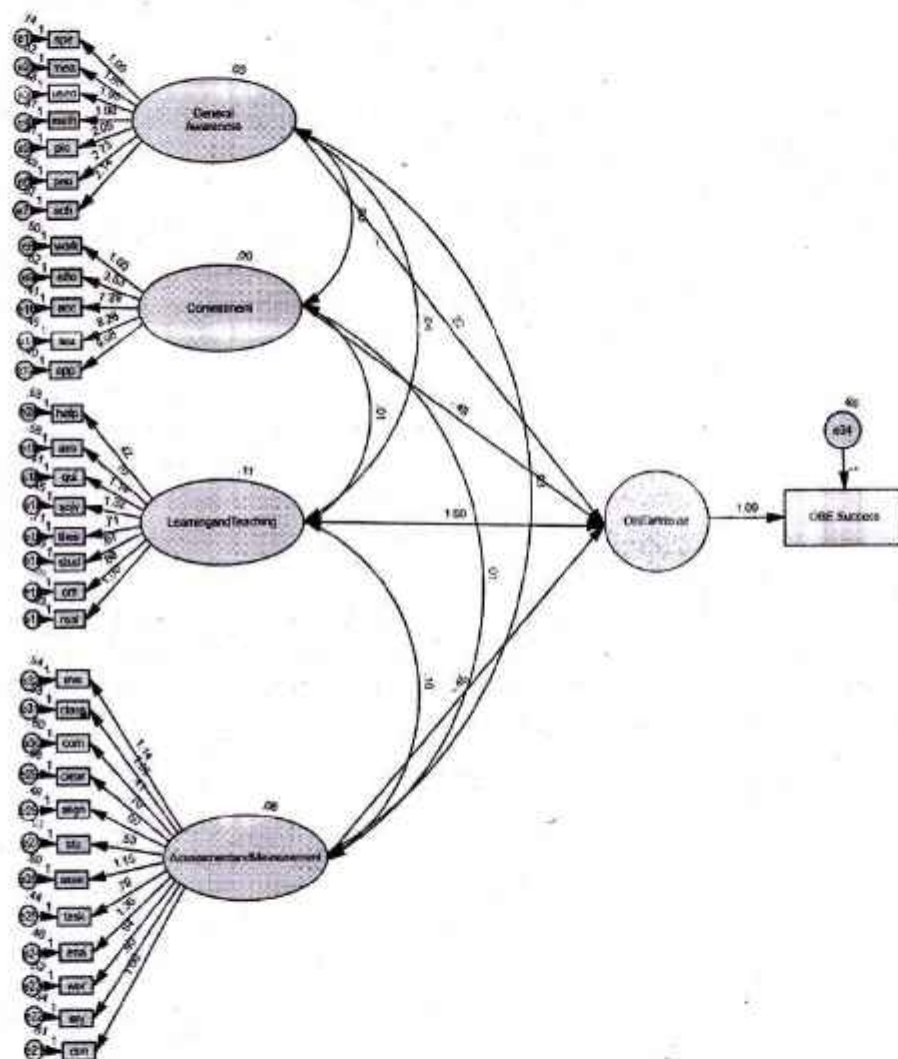
Descriptive research is a type of research that is used to describe the characteristics of a population. It collects data that are used to answer a wide range of what, when, and how questions pertaining to a particular population or group. A descriptive research design can use a wide variety of research methods to investigate one or more variables. It is called an observational research method as none of the variables in the study are influenced during the research process. So, the goal of all descriptive studies is to *explore* the background, details, and existing patterns in the problem to fully understand it. In other words, *preliminary* research. However, descriptive research can be both *preliminary* and *conclusive*. You can use the data from a descriptive study to make reports and get insights for further planning.

Simple random sampling is a type of probability sampling in which the researcher randomly selects a subset of participants from a population. Each member of the population has an equal chance of being selected.

Data is then collected from as large a percentage as possible of this random subset. In this research I would choose 650 higher education faculties from the whole population randomly for doing this research in a better way. The size of the sample chosen for the study is 650.

4.ANALYSIS

To study the relationship among the general awareness, commitment, learning and teaching, assessment and measurement we have used structural equation model. Figure 1 illustrates the success of outcome-based education



The goodness of fit index (GFI) is found to be 0.931 which confirms a good fit of 93% for the model. The adjusted goodness of fit index (AGFI) is 0.907 which takes the degrees of freedom into consideration. This indicates that this model is a good fit in measuring the OBE attributes, General, Commitment, Learning and Assessment and their dimensions. Both goodness of fit and adjusted goodness of fit are close to the recommended level of one. The root means square residue (RMR) of 0.046 and the root mean square error of approximation (RMSEA) of 0.024 suggest that the error involved in calculating the parameter was close to the recommended level of zero. In addition, the result of chi square test is good and the fitted model is strongly recommended at 1% level.



Table 1

Dependent latent variable	Independent latent variable	Estimate
OBE attributes(Z)	General Awareness(x_1)	0.484
	Commitment(x_2)	1.000
	Learning and Teaching(x_3)	0.207
	Assessment and Measurement(x_4)	0.435

Z is the estimated OBE attributes

In the same way, if the Outcome Based Education changes the General Awareness by one unit, there will be 0.484 unit increase in the Outcome Based Education attributes, when other independent latent variables are kept constant. Likewise, if the Outcome Based Education changes the Commitment by one unit, there will be 1.000 unit increase in the Outcome Based Education attributes, when other independent latent variables are kept constant. Similarly, if the Outcome Based Education changes the Learning and teaching by one unit, there will be 0.207 unit increase in the Outcome Based Education attributes, when other independent latent variables are kept constant. Finally, if the Outcome Based Education changes the Assessment and Measurement by one unit, there will be 0.435 units increase in the Outcome Based Education attribute, when other independent latent variables are kept constant. Hence, the researcher identified that the Commitment and general awareness contributed more towards the Outcome Based Education attributes of success of Outcome Based Education. Relationship among the success of Outcome Based Education and Outcome Based Education attributes. It is inferred that if the Outcome Based Education changes the FI by one unit, there will be 0.484 unit increase in the success of Outcome Based Education. As a result, it is proved that Outcome Based Education attributes will lead to success of outcome-based education.

Dependent latent variable	Independent latent variable	Estimate
Success of Outcome Based Education(S)	Outcome Based Education attributes	0.255

It is inferred that if the OBE changes the Outcome Based Education attributes by one unit, there will be 0.255 unit increase in the success of Outcome Based Education. As a result, it is proved that Outcome Based Education attributes will lead to success of Outcome Based Education.

CONCLUSION

Both parties benefit from the transparency it generates; students and teachers are aware of what to expect from a course and what must be delivered or demonstrated through the course framework. Students can advance in their chosen fields of interest thanks to the precise results produced by the parties' explicit expectations. The Outcome Based Education does not define a specific method of instruction; rather, the teacher builds the curriculum around the requirements of the pupils and is free to modify it in response to the evaluation. This aids pupils in achieving their objectives. Outcome Based Education assists students in evaluating and comparing their academic records in order to choose the best course of action for them in a new setting. Institutions can also assess their own performance by examining the results that are similar across them and focusing on the areas that need improvement.

The participation of the students is crucial to Outcome Based Education. The pupils have the ability to study and assess their abilities and growth. Additionally, parents and educational communities can become involved by creating new curricula or changing existing ones. By doing so, the standard of education is maintained and students are fully equipped for life after school. Outcome Based Education is a flexible, power-focused method of teaching. It attempts to give students the skills, orientations, and knowledge necessary for success once they leave school. Therefore, it is guided by the idea of a future citizen who is capable, accomplishment at the educational institution level is only useful if students are prepared to apply their academic accomplishment to a complicated, demanding, high-tech future.

Teachers should never enhance the manner they instruct and assess student work. The curriculum, student assessment (exam question format), and teaching methodology should all be designed by affiliated universities so that students understand the value of the Outcome Based Education system. Finding

strategies for putting each of the twelve graduate qualities into practice successfully is required. Additionally, all of the country's academic institutions should use the Outcome Based Education system as the standard method for creating graduates. Only then can the significance of Outcome Based Education be understood. The research study clearly outlines the crucial connection between the first component of the survey, which measures general awareness of Outcome Based Education, and all other sections. It suggests that the more the level of awareness raised, the greater the potential for Outcome Based Education to inspire future commitment from instructors, their enhanced teaching and learning performances, as well as the development of additional competitive evaluation and measuring systems. Another vital feature of OBE is student involvement in a given institution. To ensure that the fabric is completely understood, students should try to learn how to measure squarely on their own. Inflated student involvement gives students the impression that they are in charge of their own education and that they will gain a lot from this independent study.

This paper provides an overview of the key characteristics of Outcomes-Based Education and its application in various contexts. I have used structural equation modelling for this research. The goodness of fit index (GFI) is found to be 0.931 which confirms a good fit of 93% for the model. I have identified that the Commitment and general awareness contributed more towards the Outcome Based Education attribute of success of Outcome Based Education.

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A BUSINESS MODEL TO MEASURE THE QUALITY OF HIGHER EDUCATION INSTITUTIONS

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Abstract

This study estimates the factors determining quality of higher education institution using structural equation modelling. The data used were collected from 650 faculties of the higher education institution using the snowball sampling method by means of questionnaire. The acquired results are expected to be useful resource to the increasing the quality of the institution. The factors such as Academics and placement, teaching skills, practical knowledge, infrastructure and resources, and staff welfare, Seminar and Industrial Visits, which will be useful for the educational planners and the administrators in designing a more effective system that can be valuable to improve the overall productivity of academics in higher education.

Keywords: Higher education institutions, higher education quality, education sector.

INTRODUCTION:

Higher education has been found to be significantly related to the human development index and greater for the disadvantaged groups (Joshi, 2006). Similarly, the lack of such education causes the inverse to occur; i.e., the greater the level of higher education in a society, whether in stock or flow forms, the greater the level of human development can be, through its influence on two main components of human development index: life expectancy, and GDP per capita (Tilak, 1994). In its size and diversity, India has the third largest higher education system in the world, next only to China and the United States. Higher education in India expanded at a very fast rate during the last quarter century or so. Does the rapid expansion automatically lead to reduction in inequalities in education? While some strongly argue that the benefits of expansion have percolated to the lower strata of the society, some (e.g., Deshpande, 2006) view that higher education is inherently an exclusive field and hence its elitism is an integral aspect of its nature; and that modes of exclusion are built into its fundamental structure as a matter of principle. Hence, it cannot be expected that growth in higher education will necessarily percolate to the downtrodden strata of the society.

A survey conducted by Owlia and Aspinwall (1997) examined the views of different professionals and practitioners on the quality in higher education and concluded that customer orientation in higher education is a generally accepted principle. They construed that from the different customers of higher education, students were given the highest rank. Student experience in a tertiary education institution should be a key issue of which performance indicators need to address. Thus, it becomes important to identify determinants or critical factors of service quality from the standpoint of students being the primary customers.

Higher education relies heavily on government funding in many nations. The pressure is mounting on higher education institutions (HEIs) to make effective and efficient use of public funds (Gordon and Mel-ao, 2012). One means of ensuring prudent management of these funds to relevant stakeholders is through the use of performance indicators (PIs). The use of PIs is needed to provide a basis for improved internal performance and internal and external communication. Governments, funders, and sponsors are increasingly linking the funding



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of HEIs with PIs (Patrick and Stanley, 1998; Taylor, 2001). Even HEIs that do not heavily rely on government funding need to continuously improve their performance to ensure a sustainable level of funding. To this end, the use of PIs is gaining recognition as an important tool for the continued survival of the HEIs.

The higher education sector has undergone major changes throughout the world which led to increased competition for institutions in this sector (Kirp, 2003; Maringe and Gibbs, 2009). In Europe, there have been profound changes in the way university education is provided with the Bologna Agreement enabling students to move freely between European institutions of education. Also, the trends towards a declining student population and increasing budgetary constraints make the environment of these institutions highly turbulent. Thus, they increasingly need to find ways of attracting and retaining their potential and current students.

Higher education in India expanded at a very fast rate during the last quarter century or so. Does the rapid expansion automatically lead to reduction in inequalities in education? While some strongly argue that the benefits of expansion have percolated to the lower strata of the society, some (e.g., Deshpande, 2006) view that higher education is inherently an exclusive field and hence its elitism is an integral aspect of its nature; and that modes of exclusion are built into its fundamental structure as a matter of principle. Hence, it cannot be expected that growth in higher education will necessarily percolate to the downtrodden strata of the society. Some (Raftery and Hout, 1993) even argue that the principle of 'maximally maintained inequality' would hold according to which educational inequality remains unchanged until enrolment ratio at a given level reaches the saturation point, estimated at around 95 per cent. Many also feel that inequalities would be higher at lower levels of education, and they become less at higher levels of education, as only the more able would survive up to higher level of education. However, one might note higher degree of inequalities in higher education as the costs of participation in higher education are much higher than costs of school education.

The role of higher education (HE) has been growingly recognized when developing a competitive socio-economic system (Kováts, 2016). Therefore, in the last two decades a renewed attention has been paid to the higher education sector, the various quality issues of institutional operation and of its different levels have come to the forefront (e.g., Mizikaci, 2006; Gupta & Kaushik, 2018). Diverse quality evaluation methods have arisen due to the increasing stakeholder requirements associated with institutional quality (Kováts & Takács, 2016).

This research work makes an effort to investigate the elements of Academics and placement, teaching skills, practical knowledge, infrastructure and resources, and staff welfare, Seminar and Industrial Visits, as they have the potential to affect the standard of higher education in India. The goal of the research paper is to investigate the aspects associated to these factors which have an impact on how well higher education in India is performing. The factors such as Academics and placement, teaching skills, practical knowledge, infrastructure and resources, and staff welfare, Seminar and Industrial Visits, which will be useful for the educational planners and the administrators in designing a more effective system that can be valuable to improve the overall productivity of academics in higher education.

LITERATURE REVIEW

Ali (2020) described Online education changes all components of teaching and learning in higher education. Many empirical studies have been conducted to examine issues in delivering online courses; however, few have synthesized prior studies and provided an overview on issues in online courses. A review of literature using Cooper's framework was conducted to identify such issues. Wokabi (2019) While quality assurance (QA) is evidently present in higher educational institutions in Kenya, this paper observes that existence of QA mechanisms, though necessary, is inadequate to guarantee delivery of quality services and products.

Knight (2018) examined Internationalization has transformed the higher education landscape around the world and has drastically changed itself. Some question whether the change is for better or worse given some of the unintended consequences of internationalization such as commercialization, diploma and accreditation mills, international rankings and the great brainrace.



Redmond et al. (2018) researched Student engagement is understood to be an important benchmark and indicator of the quality of the student experience for higher education; yet the term engagement continues to be elusive to define and it is interpreted in different ways in the literature.

Schneider and Preckel (2017) described the last 2 decades witnessed a surge in empirical studies on the variables associated with achievement in higher education. A number of meta-analyses synthesized these findings. In our systematic literature review, we included 38 meta-analyses investigating 105 correlates of achievement, based on 3,330 effect sizes from almost 2 million students.

Mtebe and Raisamo (2014) explained Higher education in Tanzania like in many other Sub-Saharan countries suffers from unavailability of quality teaching and learning resources due to lack of tradition, competence, and experience to develop such resources. Nevertheless, there are thousands of open educational resources (OER) freely available in the public domain that can potentially improve the quality of existing resources or help to develop new courses.

Boud and Molloy (2013) explained Student feedback is a contentious and confusing issue throughout higher education institutions. This paper develops and analyses two models of feedback: the first is based on the origins of the term in the disciplines of engineering and biology.

It positions teachers as the drivers of feedback. The second draws on ideas of sustainable assessment. This positions learners as having a key role in driving learning, and thus generating and soliciting their own feedback.

Sultan and Yin Wong (2013) analyzed the purpose of the paper is to report on the perception of students in regard to critical antecedents, dimensions and consequences of service quality with an aim to develop a theoretical model in the context of a university in Australia.

Kahu (2013) researched Student engagement is widely recognized as an important influence on achievement and learning in higher education and as such is being widely theorized and researched. This article firstly reviews and critiques the four dominant research perspectives on student engagement: the behavioral perspective, which foregrounds student behaviors and institutional practice; the psychological perspective.

Nicol (2010) explained Student surveys across the world have highlighted that students are dissatisfied with the feedback they receive on their assignments and many institutions have been putting plans in place to address this issue.

RESEARCH METHODOLOGY

In this research we have used structural equation modelling for measuring the quality of education. Conceptual research is that related to some abstract idea(s) or theory. It is generally used by philosophers and thinkers to develop new concepts or to reinterpret existing ones. On the other hand, empirical research relies on experience or observation alone, often without due regard for system and theory. It is data-based research, coming up with conclusions which are capable of being verified by observation or experiment. We can also call it as experimental type of research. In such research it is necessary to get at facts first-hand, at their source, and actively to go about doing certain things to stimulate the production of desired information.

In such research, the researcher must first provide himself with a working hypothesis or guesses as to the probable results. He then works to get enough facts (data) to prove or disprove his hypothesis. He then sets up experimental designs which he thinks will manipulate the persons or the materials concerned so as to bring forth the desired information. Such research is thus characterized by the experimenter's control over the variables under study and the deliberate manipulation of one of them to study its effects. Empirical research is appropriate when profits

sought that certain variables affect other variables in some way. Evidence gathered through experiments or empirical studies is generally considered to be the most powerful support possible for a given hypothesis. Kothari, C.R. (2004)

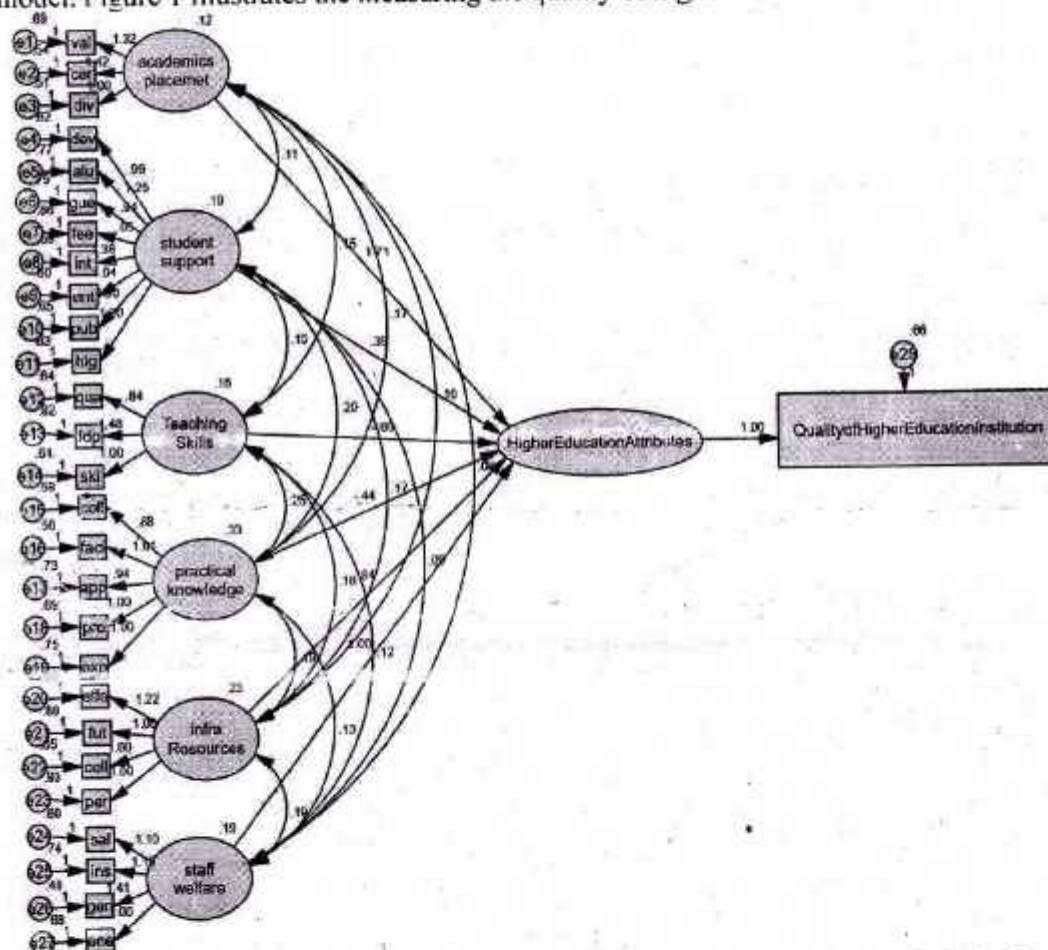


Snowball sampling- the sampling is a restrictive multi-stage sampling in which initially certain number of sampling units (respondents) are randomly selected. Later additional sampling units are selected based on referral process. This means that the initially selected respondents provide addresses of additional respondents for the interviewers.

Initial respondents may be randomly selected, for example, from the information contained in telephone directories. later, additional respondents can be included in the sample based on the references made by those initial respondents. This is an inexpensive and convenient on- probability sampling method which suits the situations where the development of sampling frame is a difficult and time-consuming task First, I have collected data from the one professor and then I was collected from their friends. The size of the sample chosen for the study is 650.

DATA ANALYSIS

To study the relationship among the quality of higher education institution academics and placement, student support, teaching skills, practical knowledge, infrastructure and resources, staff welfare we have used structural equation model. Figure 1 illustrates the measuring the quality of higher education institution model.



The goodness of fit index (GFI) is found to be 0.931 which confirms a good fit of 93% for the model. The adjusted goodness of fit index (AGFI) is 0.907 which takes the degrees of freedom into consideration. This indicates that this model is a good fit in measuring the higher education attributes, academics and placement, student support, teaching skills, practical knowledge, infrastructure and resources, staff welfare and their dimensions. Both goodness of fit and adjusted goodness of fit are close to the recommended level of one. root means square residue (RMR) of 0.046 and the root mean square error of approximation (RMSEA) of 0.024 suggest that the error involved in calculating the parameter was close to the recommended level of zero. In addition, the result of chi square test is good and the fitted model is strongly recommended at 1% level.

Dependent latent variable	Independent latent variable	Estimate
Higher education attributes(Z)	Academic & placement(x ₁)	0.386
	Students support(x ₂)	0.889
	Teaching skills(x ₃)	0.449
	Practical knowledge(x ₄) infra & resources(x ₅)	0.829
	Staff welfare(x ₆)	1.000
		1.718

Z is the estimated higher education attributes

In the same way, if the quality of higher education changes the academic & placement by one unit, there will be 0.386 unit increase in the higher education attributes, when other independent latent variables are kept constant. Likewise, if the quality of higher education changes the students support by one unit, there will be 0.889 unit increase in the higher education attributes, when other independent latent variables are kept constant. Similarly, if the quality of higher education changes the teaching skills by one unit, there will be 0.449 unit increase in the higher education attributes, when other independent latent variables are kept constant. At the same time, if the quality of education changes the practical knowledge by one unit, there will be 0.829 units increase in the higher education attributes, when other independent latent variables are kept constant. Finally, if the quality of education changes the infrastructure and resources by one unit, there will be 1.000 unit increase in the higher education attributes, when other independent latent variables are kept constant. If the quality of higher education changes the staff welfare by one unit, there will be 1.718 units increase in the higher education attributes. Hence, the researcher identified that the Academic placement, infrastructure & resources, staff welfare contributed more towards the higher education attributes of quality of higher education institutions.

Dependent latent variable	Independent latent variable	Estimate
Quality of Higher Education Institutions(S)	Higher education attributes(Z)	1.000

Similarly, it is clearly described that during measuring the quality of education institutions, if the higher education attributes increase by one unit, there will be 1.000 unit increase when other independent variables are kept constant.

CONCLUSION

In this study we use the structural equation modelling for analyzing the quality of higher education institutions. The assessments of these requirements and standards have placed more attention on curricula or tangible aspects than directly assessing service quality. The direct measurement of service quality will fill this gap of ensuring quality in service institutions. The assessment of quality service has to be done continuously for continuous improvement (Çerri, 2014). Assessment and measurement of service quality need to be executed from the perspective of primary stakeholders. As discussed in Douglas, McClelland, and Davies (2008) the primary stakeholders in higher education are the students.

Both a human right and a public good, quality education. Governments and other public bodies should make sure that all individuals, from young children to adults, have free access to a high-quality education service. The basis for societal equity is high-quality education. People who receive a high-quality education can grow in all the qualities and abilities necessary to realise their full potential as individuals and as contributors to society. One of the most fundamental public services is a high-quality education.

Thus, it may be said that education, particularly higher education, which produces highly-skilled labour, is the key to advancement. However, the nation as a whole, as well as all stakeholders, are concerned about the diminishing quality of higher education. Indian higher education has grown in both number and quality, but the latter has not. India cannot advance until its higher education system is of high enough quality, as this low quality is leading to low employability, poor performance of those with specialized skills, a lack of innovative ideas and other factors that are crucial to success and progress in the modern era. All in all, higher education needs to improve its quality and adaptability.

The discussions so far about the quality of higher education and its measurement have been predicated on two key ideas: first, that the main goal of higher education is to maximise students' educational development; and second, that any discussion about the quality of higher education and its measurement should center on how institutions can continue to make improvements to maximize students' learning and development. I have used structural equation modelling for this research. The goodness of fit index (GFI) is found to be 0.931 which confirms a good fit of 93% for the model. In this research identified that the Academic placement, infrastructure & resources, staff welfare contributed more towards the higher education attributes of quality of higher education. The sample of the study are taken from the staff from the various higher education institutions. The acquired results are expected to be useful resource to the increasing the quality of the institutions. The factors such as Academics and placement, teaching skills, practical knowledge, infrastructure and resources, and staff welfare, Seminar and Industrial Visits, which will be useful for the educational planners and the administrators in designing a more effective system that can be valuable to improve the overall productivity of academics in higher education.

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**A STUDY ON WORKING CAPITAL MANAGEMENT IN TAMILNADU
CEMENT CORPORATION**

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ABSTRACT

A Working capital management ensures a company has sufficient cash flow in order to meet its short-term debt obligations and operating expenses. The needs of efficient working capital management must be considered in relation to other aspects of the firms' financial and non-financial performance. An efficient Working Capital Management is expected to contribute to the high financial performance. The main purpose of this study was to investigate the working capital management and its impact on firms' financial performance. The efficiency of working capital management was investigated through the cash conversion cycle. The research problem focused here — What extent the working capital management influences on financial performance of the trading firms? — A strong significant relationship between working capital management and profitability has been identified in previous research. It was assumed that — The efficient working capital management has strong impact on financial performance. — The dependent variable Return on Assets is used as a measure of profitability of financial performance and its' relationship with working capital management was investigated to find out the results. The capitals noticeably go along with the operative cycle. A poring over of the operative cycle reveals that funds endowed within the operation area unit recycled back in to money. The shorter the amount of operative cycle the larger are going to be the turnover of the funds endowed in varied functions. The shorter amount of operative cycle shows higher potency of a firm. The potency of assets management are often determined by the in operation cycle of the firm. This paper aims at analyzing the potency of working capital management through the connection between in operation cycle amount and profitableness of Tamilnadu Cement Corporation. To measure the capital Management potency, operative cycle has been calculated and therefore the relationship is formed with margin quantitative relation.

Keywords: Working Capital, Operating Cycle, Profitability, Operating Profit

INTRODUCTION OF THE STUDY

A Study of working capital is the major importance for internal and external analysis because of its relationship with the current day to day operations of business. Funds collected from different sources are invested in the business for the acquisition of assets. These of the assets are employed for earning revenue. The basic problem facing the finance manager of an enterprise is trade-off between conflicting but equally important goals of liquidity and profitability. The greater the liquid resources of the firm, the lesser will be its profitability and vice versa. The firm has to maintain the working capital at such a level as may ensure the satisfying earnings to the enterprise without jeopardizing its liquid position. Thus working capital is concerned with the problems that arise in attempting to discuss in details various tools and techniques, which can be gainfully employed to solve the problem of determining optimum level of working capital.

Working capital management of fixed assets and long term financing. In this part issues are relating to the management of current assets will be discussed. The management of current assets is similar to that fixed assets in the sense that both cases a firm analysis their effects on its returns and risk. The management of fixed and current assets, however, differs in three important ways: first, in managing fixed assets. Second, large holding of current assets, especially cash, strengthens of the firm liquidity position but also reduces the overall profitability. Thus risk return trade-off is involved in holding current assets. Third, fixed assets are purchased as well as current assets depend upon expected sales but it is only current assets which are subject to low price fluctuations in the market. Thus, the firm has a greater degree of flexibility in managing current assets.



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REVIEW OF LITERATURE

Every business needs funds for two purposes basically; they are for establishment and to carry day-to-day operations. Long term funds are required for establishment of the organization, it is required for production facility through purchase of fixed assets and it needs fixed capital. Short term funds are needed for the purchase of raw materials, payment of wages, payment of day today expenses etc. The funds required for these short term purposes are known as working capital. Many researchers have studied working capital from different views and in different environments. The following ones were very interesting and useful for our research

Kouma Guy¹, (2001) in a study on, "**Working capital management in healthcare**", Working capital is the required to finance the day to day operations of an organization. Working capital may be requiring bridging the gap between buying of stocked items to eventual payment for goods sold on account. Working capital also has to fund the gap when products are on hand but being held in stock. Products in stock are at full cost, effectively they are company cash resources which are out of circulation therefore additional working capital is required to meet this gap which can only be reclaimed when the stocks are sold (and only if these stocks are not replaced) and payment for them is received. Working capital requirements have to do with profitability and much more to do with cash flow.

Eljelly² (2002) empirically examined the relationship between profitability and liquidity, as measured by current ratio and cash gap (cash conversion cycle) on a sample of 929 joint stock companies in Saudi Arabia. Using correlation and regression analysis, Eljelly found significant negative relationship between the firm's profitability and its liquidity level, as measured by current ratio. This relationship is more pronounced for firms with high current ratios and long cash conversion cycles. At the industry level, however, he found that the cash conversion cycle or the cash gap is of more importance as a measure of liquidity than current ratio that affects profitability. The firm size variable was also found to have significant effect on profitability at the industry level.

Falope and Ajilore³ (2003), used a sample of 50 Nigerian quoted non-financial firms for the period 1996 -2005. Their study utilized panel data econometrics in a pooled regression, where time-series and cross-sectional observations were combined and estimated. They found a significant negative relationship between net operating profitability and the average collection period, inventory turnover in days, average payment period and cash conversion cycle for a sample of fifty Nigerian firms listed on the Nigerian Stock Exchange. Furthermore, they found no significant variations in the effects of working capital management between large and small firms.

Raheman and Nasr⁴ (2004), studied the effect of different variables of working capital management including average collection period, inventory turnover in days, average payment period, cash conversion cycle, and current ratio on the net operating profitability of Pakistani firms. They selected a sample of 94 Pakistani firms listed on Karachi Stock Exchange for a period of six years from 1999 - 2004 and found a strong negative relationship between variables of working capital management and profitability of the firm. They found that as the cash conversion cycle increases, it leads to decreasing profitability of the firm and managers can create positive value for the shareholders by reducing the cash conversion cycle to a possible minimum level.

Thomas M. Krueger⁵ (2005), studied distinct levels of WCM measures for different industries, which tend to be stable over time. Many factors help to explain this discovery. The improving economy during the period of the study may have resulted in improved turnover in some industries, while slowing turnover may have been a signal of troubles ahead. Our results should be interpreted cautiously. Our study takes places over a short time frame during a generally improving market. In addition, the survey suffers from survivorship bias – only the top firms within each industry are ranked each year and the composition of those firms within the industry can change annually.

Gass D⁶ (2006), studied "Working capital is the lifeblood of business" is an often repeated maxim amongst financial managers. Working capital management refers to the management of current or short-term assets and short-term liabilities. Components of short-term assets include inventories, loans and advances, debtors, investments and

cash and bank balances. Short-term liabilities include creditors, trade advances, borrowings and provisions. The major emphasis is, however, on short-term assets, since short-term liabilities arise in the context of short-term assets. It is important that companies minimize risk by prudent working capital management.

McClure B⁷(2007), "Working Capital Works" describes that Cash is the lifeline of a company. If this lifeline deteriorates, so does the company's ability to fund operations, reinvest and meet capital requirements and payments. Understanding a company's cash flow health is essential to making investment decisions. A good way to judge a company's cash flow prospects is to look at its working capital management (WCM). Cash is king, especially at a time when fund raising is harder than ever. Letting it slip away is an oversight that investors should not forgive. Analyzing a company's working capital can provide excellent insight into how well a company handles its cash, and whether it is likely to have any on hand to fund growth and contribute to shareholder value.

Dubey R⁸(2008), studied The working capital in a firm generally arises out of four basic factors like sales volume, technological changes, seasonal, cyclical changes and policies of the firm. The strength of the firm is dependent on the working capital as discussed earlier but this working capital is itself dependent on the level of sales volume of the firm. The firm requires current assets to support and maintain operational or functional activities. By current assets we mean the assets which can be converted readily into cash say within a year such as receivables, inventories and liquid cash. If the level of sales is stable and towards growth the level of cash, receivables and stock will also be on the high.

Thachappilly G⁹(2009), "Working Capital Management Manages Flow of Funds", (2009) describes that Working capital is the cash needed to carry on operations during the cash conversion cycle, i.e. the days from paying for raw materials to collecting cash from customers. Raw materials and operating supplies must be bought and stored to ensure uninterrupted production. Wages, salaries, utility charges and other incidentals must be paid for converting the materials into finished products. Customers must be allowed a credit period that is standard in the business. Only at the end of this cycle does cash flow in again

Dong¹⁰(2010) reported that the firms' profitability and liquidity are affected by working capital management in his analysis. Pooled data are selected for carrying out the research for the era of 2006-2008 for assessing the companies listed in stock market of Vietnam. He focused on the variables that include profitability, conversion cycle and its related elements and the relationship that exists between them. From his research it was found that the relationships among these variables are strongly negative. This denotes that decrease in the profitability occurs due to increase in cash conversion cycle. It is also found that if the number of days of account receivable and inventories are diminished then the profitability will increase numbers of days of accounts receivable and inventories.

RESEARCH METHODOLOGY

INTRODUCTION

Research is an integrated part of education. According to John Best research is defined as "A systematic analysis and recording at controlled observation that lead to generalization and principles of theories resulting in product as control of many events that are of consequences".

RESEARCH METHODOLOGY

Research methodology is a way to systematically solve the research problem, it may be understood as a science of studying how research is done scientifically so, the research methodology not only talks about the research methods but also considers the logic behind the method used in the context of the research study. The purpose of research methodology is to describe the research procedure. This includes the research design, data methodology, period of the study and the theoretical analysis tools used.

OBJECTIVES OF THE STUDY

- Primary objective
- Secondary objective



Primary objective

To study the working capital management for past 5 years of Tamilnadu Cement Corporation.

Secondary objective

- To study the working capital components such as Receivables management, Cash management, Inventory management.
- To study the liquidity position through various working capital related ratios.
- To compare and analyze the utilization of current assets and current liabilities.
- To know the trend of various elements of working capital.

RESEARCH DESIGN

The research design which involves serious of rational decision making of the following elements. A research design is purely and simply the frame work or plane for a study that guide the collection and analysis of data. It is blue print that is followed in completing a study the research design specifies the methods, data collection and data analysis.

For this study analytical type of research has been adopted. In this research the researcher has to us facts or information already available and analyzes these to make a critical evaluation of the material. Research methodology is a scientific and systematic search for pertinent information on a specific topic. Research methodology is way to systematically solve the research problem.

SOURCES OF DATA COLLECTION

This study is purely based on the secondary data. The data's were collected from the published financial reports for the five years from 2010 to 2015

Secondary data

Secondary data's has been obtained from published reports like the annual reports of the company balance sheet and profit & loss account, booklets, records such as files, reports maintained by the company. Mainly the annual report consists of two parts;

- Profit and loss account
- Balance Sheet

Profit and loss reveals the income and expenditure of the company. Balance sheet reveals the financial position of the company.

SOURCES OF DATA

The data being used in this analysis is a secondary data taken from the following period of 5 years.

- Balance sheet of the year 2010-2011
- Balance sheet of the year 2011-2012
- Balance sheet of the year 2012-2013
- Balance sheet of the year 2013-2014
- Balance sheet of the year 2014-2015

PERIOD OF THE STUDY

The present study deals with the data collected from the annual reports and other relevant documents for the period commencing from 2010 to 2015.

TOOLS USED FOR ANALYSIS

- Statement of Changes in Working Capital
- Ratio Analysis

- Trend Analysis
- Cash Flow Statement

ANALYSIS AND INTREPRETATION

STATEMENT OF CHANGES IN WORKING CAPITAL TABLE -4.1.1

STATEMENT OF CHANGES IN WORKING CAPITAL FOR THE YEAR 2010-2011

PARTICULARS	2010	2011	Increasing	Decreasing
CURRENT ASSET:	1329990382	126372939.59	-	6617442.41
Inventories				
Sundry Debtors	370407288	392899056.52	22431769	-
Cash & bank balances	21215217	39204812.69	79895937	-
Loan & advance	107233324	119740222.69	12506899	-
TOTAL CURRENT ASSET(A)	631846311	668157631.49	-	-
CURRENT LIABILITY:				
Current liabilities & provisions	262075978	420804653.98	-	158728676
TOTAL CURRENT LIABILITY(B)	262075978	420804653.98	-	-
WORKING CAPITAL(A-B)	369770333	247352977.51	122417855	165346118
Increasing in working capital	-	122417855	122417855	-
TOTAL	369770333	369770233	165346118	165346118

INTERPRETATION:

From the above table, it is inferred that during the year 2010 - 2011 there was a net decrease in working capital of 122417855. It indicates an adequate working capital in Tamilnadu Cement Corporation.

TABLE -4.1.2

STATEMENT OF CHANGES IN WORKING CAPITAL FOR THE YEAR 2011-2012

PARTICULARS	2011	2012	Increasing	Decreasing
CURRENT ASSET:	126372939.59	205200532.07	78827592.48	
Inventories				
Sundry Debtors	392899056.52	374540812.69		18358144.13
Cash & bank balances	39204812.69	4081516.32	10011505.87	
Loan & advance	119740222.69	66824071.46		22916151.23
TOTAL CURRENT ASSET(A)	668157031.49	738460001.85		
CURRENT LIABILITY:				
Current liabilities & provisions	420804653.98	379846770.62	40957883.18	
TOTAL CURRENT LIABILITY(B)	420804653.98	379846770.62		
WORKING CAPITAL(A-B)	247352977.51	358613231.2	106172259.3	39211123.93
Increasing in working capital		101260853.70		101260853.70
TOTAL	358613231.2	358613231.2	140472279.5	140472279.5

INTERPRETATION:

From the above table, it is inferred that during the year 2011 and 2012 there was a net increase in working capital of 101260853.70. It indicates an adequate working capital in Tamilnadu Cement Corporation.

TABLE -4.1.3

STATEMENT OF CHANGES IN WORKING CAPITAL FOR THE YEAR 2012-2013

PARTICULARS	2012	2013	Increasing	Decreasing
CURRENT ASSET:				
Inventories	305200532.07	228136000	22835487.93	
Sundry Debtors	376544082.00	328188000	-	48356082
Cash & bank balances	49991316.32	37513000	-	12378316.32
Loan & advance	98523071.28	148196000	11871928.54	-
TOTAL CURRENT ASSET(A)	728460001.65	742033000		
CURRENT LIABILITY:				
Current liabilities & provisions	379846770.62	-	-	34479229.38
TOTAL CURRENT LIABILITY(B)	379846770.62			
WORKING CAPITAL(A-B)	348613231.2	347709000	1407398.47	35211627.7
Decrease in working capital	-	904231	904231	-
	348613231.2	348613231.2	75211627.7	75211627.7

INTERPRETATION:

From the above table, it is inferred that during the year 2012 and 2013 there was a net decrease in working capital of 904231. It indicates an inadequate working capital in Tamilnadu Cement Corporation.

TABLE -4.1.4

STATEMENT OF CHANGES IN WORKING CAPITAL FOR THE YEAR 2013-2014

PARTICULARS	2013	2014	Increasing	Decreasing
CURRENT ASSET:				
Inventories	228138000	116829961	-	111308039
Sundry Debtors	328188000	202628948	-	126159056
Cash & bank balances	37513000	9569873	48174873	-
Loan & advance	148196000	113365121	-	34832479
TOTAL CURRENT ASSET(A)	742033000	817712108		
CURRENT LIABILITY:				
Current liabilities & provisions	394320000	388740731	3585269	-
TOTAL CURRENT LIABILITY(B)	394320000	388740731		
WORKING CAPITAL(A-B)	347709000	128971508	33768142	375497634
Decrease in working capital	-	218737492	218737492	-
TOTAL	347709000	347709000	272497634	272497634

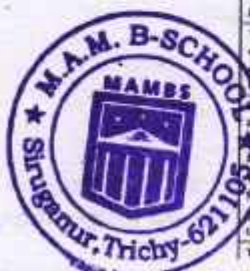
INTERPRETATION:

From the above table, it is inferred that during the year 2013 and 2014 there was a net decrease in working capital of 218737492. It indicates an inadequate working capital in Tamilnadu Cement Corporation.

TABLE -4.1.5

STATEMENT OF CHANGES IN WORKING CAPITAL FOR THE YEAR 2014-2015

PARTICULARS	2014	2015	Increasing	Decreasing
CURRENT ASSET:				
Inventories	116829961	13212678	5488373	
Sundry Debtors	202628948	82953721	163275000	
Cash & bank balances	9569873	120422206	84753047	
Loan & advance	113365121	119997867	663226	
TOTAL CURRENT ASSET(A)	817712108	198099996		
CURRENT LIABILITY:				
Current liabilities & provisions	388740731	38232755	38432056	
TOTAL CURRENT LIABILITY(B)	388740731	38232755		
WORKING CAPITAL(A-B)	128971508	159772233	354806125	
Decrease in working capital	-	39450727		39450727
TOTAL	128971508	159772233	354806125	39450727



INTERPRETATION:

From the above table, it is inferred that during the year 2014 and 2015 there was a net increase in working capital of 394800727. It indicates an adequate working capital in Tamilnadu Cement Corporation.

CURRENT RATIO

RATIO ANALYSIS

1. LIQUIDITY RATIO
1. CURRENT RATIO

TABLE 4.2.1
TABLE SHOWING CURRENT RATIO FOR THE YEAR 2011-2015

YEAR	CURRENT ASSETS	CURRENT LIABILITIES	CURRENT RATIO
2010-11	898177551.5	420004854	1.59
2011-12	728462851.3	379545785.6	1.92
2012-13	742023950	39428000	1.88
2013-14	317712138	245740731	1.33
2014-15	768889970	265327132	3.00



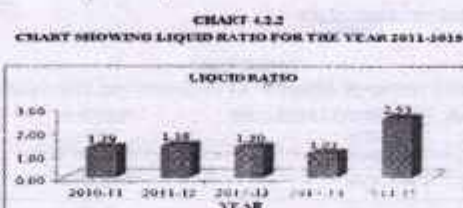
INTERPRETATION

From the above current ratio is 1.59 during the year 2010-11 it has been increased to 1.92, during the year 2011-12, it falls down to 1.88 during 2012-13 and again it has decreased to 1.33 during the year 2013-14. It has been increased to 3:1 during the year 2014-15. Standard ratio is 2:1, the ratio during the year 2014-15 is 3:1 which is above the standard.

LIQUID RATIO

TABLE 4.2.2
TABLE SHOWING LIQUID RATIO FOR THE YEAR 2011-2015

YEAR	LIQUID ASSETS	CURRENT LIABILITIES	LIQUID RATIO
2010-11	131782051.9	420004854	1.29
2011-12	125355428.9	379545785.6	1.18
2012-13	211898990	39428000	1.30
2013-14	481823138	245740731	1.68
2014-15	662871196	265327132	2.29

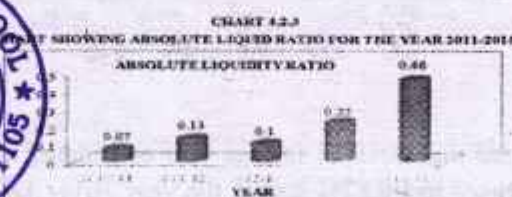


ABSOLUTE LIQUID RATIO

3. ABSOLUTE LIQUID RATIO

TABLE 4.2.3
TABLE SHOWING ABSOLUTE LIQUID RATIO FOR THE YEAR 2011-2015

YEAR	CASH	CURRENT LIABILITIES	ABSOLUTE LIQUIDITY RATIO
2010-11	28204812.88	420004854	0.07
2011-12	2881318.32	379545785.6	0.11
2012-13	37335000	39428000	0.12
2013-14	85688973	245740731	0.22
2014-15	128425120	265327132	0.48



INTERPRETATION

From the above Absolute liquid ratio During the year 2010-11 is 0.07, it has been increased to 0.13 during the year 2011-12, it falls down to 0.1 during the year 2012-13 and again it has increased to 0.22 during the year 2013-14. It has been increased to 0.46 during the year 2014-15. This shows the Absolute liquidity ratio increases every year and it shows that the liquidity position of the company is satisfactory.

TREND ANALYSIS

TREND ANALYSIS

TREND OF CURRENT ASSETS

TABLE 4.3.1

TABLE SHOWING TREND OF CURRENT ASSETS FOR THE YEAR 2011-2015

YEAR	CURRENT ASSETS	TREND %
2010-11	668157031.5	100
2011-12	728480001.9	109.03
2012-13	742035000	111.06
2013-14	517712239	77.48
2014-15	796099970	117.65

CHART 4.3.1

CHART SHOWING TREND OF CURRENT ASSETS FOR THE YEAR 2011-2015



INTERPRETATION

From the above table, it is inferred that 2010-11 is base year considered as a trend percent is taken as 100, current assets has been increased to 109.03% during the year 2011-12, it has been increased to 111.06% during the year 2012-13 and it has been decreased to 77.48% during the year 2013-14. It has been increased to 117.65 during the year 2014-15.

TREND OF CURRENT LIABILITIES

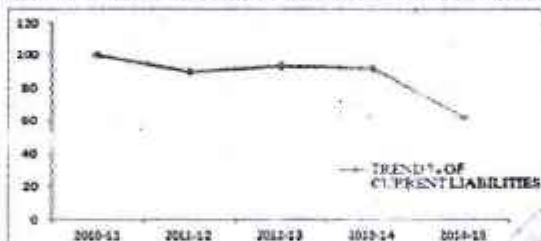
TABLE 4.3.2

TABLE SHOWING TREND OF CURRENT LIABILITIES FOR THE YEAR 2011-2015

YEAR	CURRENT LIABILITIES	TREND %
2010-11	420804854	100
2011-12	379846770.6	90.27
2012-13	394328000	93.71
2013-14	388740751	92.38
2014-15	262327735	62.34

CHART 4.3.2

CHART SHOWING TREND OF CURRENT LIABILITIES FOR THE YEAR 2011-2015



INTERPRETATION

From the above table, it is inferred that 2010-11 is base year considered as a trend percent is taken as 100, current liabilities has been decreased to 90.27% during the year 2011-12, it has been increased to 93.71% during the year 2012-13, it has been decreased to 92.38% during the year 2013-14, and it has been decreased to 62.34% during the year 2014-15.

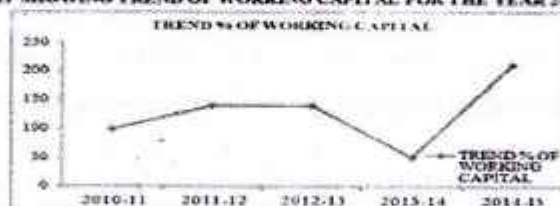


during the year 2012-13 and it has been decreased to 92.38% during the year 2013-14. It has been decreased to 62.33 during the year 2014-15.

TREND OF WORKING CAPITAL

TABLE 4.3.5
TABLE SHOWING TREND OF WORKING CAPITAL FOR THE YEAR 2011-2015

YEAR	WORKING CAPITAL	TREND% OF WORKING CAPITAL
2010-11	247312577.5	100
2011-12	348613231.2	140.94
2012-13	347706000	140.57
2013-14	128971308	52.14
2014-15	521772218	211.75

CHART 4.3.5
CHART SHOWING TREND OF WORKING CAPITAL FOR THE YEAR 2011-2015

INTERPRETATION

From the above table, it is inferred that 2010-11 is base year considered as a trend percent is taken as 100, working capital has been increased to 140.94% during the year 2011-12, it has been increased to 140.57% during the year 2012-13 and it has been decreased to 52.14% during the year 2013-14. It has been increased to 211.75% during the year 2014-15.

FINDINGS

- Working capital of the Tamilnadu cement corporation was increasing and showing positive working capital in the year of 2011-2012 and 2014-2015.
- Working capital of the Tamilnadu cement corporation was decreasing and showing negative working capital in the year 2010-2011, 2012-2013, 2013-2014.
- Current ratio is 1.59 during the year 2010-11 it has been increased to 1.92, during the year 2011-12, it falls down to 1.88 during 2012-13 and again it has decreased to 1.33 during the year 2013-14. It has been increased to 3:1 during the year 2014-15. Standard ratio is 2:1, the ratio during the year 2014-15 is 3:1 which is above the standard. If the ratio is more than two the firm is able to pay its current liabilities.
- Quick ratio is 1.29 during the year 2010-11 it has been increased to 1.38, during the year 2011-12, it falls down to 1.30 during 2012-13 and again it has decreased to 1.03 during the year 2013-14. It has been increased to 2.53 during the year 2014-15. Standard ratio is 1:1, the ratio during the year 2014-15 is 2.53 which is above the standard. If the ratio is more than one the firm is able to pay its current liabilities.
- Absolute liquid ratio During the year 2010-11 is 0.07, it has been increased to 0.13 during the year 2011-12, it falls down to 0.1 during the year 2012-13 and again it has increased to 0.22 during the year 2013-14. It has been increased to 0.46 during the year 2014-15. This shows the Absolute liquidity ratio increases every year and it shows that the liquidity position of the company is satisfactory.
- It is inferred that 2010-11 is base year and considered trend percent is taken as 100, current assets has been increased to 109.03% during the year 2011-12, it has been increased to 111.06% during the year 2012-13 and it has been decreased to 77.48% during the year 2013-14. It has been increased to 117.65 during the year 2014-15.
- It is inferred that 2010-11 is base year and considered trend percent is taken as 100, current liabilities has been decreased to 92.38% during the year 2011-12, it has been increased to 93.71% during the year 2012-13 and it has been decreased to 92.38% during the year 2013-14. It has been decreased to 62.33 during the year 2014-15.

A STUDY ON INVESTORS' ATTITUDES TOWARD INVESTMENT AVENUES WITH SPECIAL REFERENCE TO PERABMALUR DISTRICT

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ABSTRACT:

This study deals with the attitude of the investor to find out the better investment choices that people can make for the best investment and certainty of returns. An investment process that helps people invest their money in various ways. The study is descriptive in nature. Primary data is collected from direct sources using methods like surveys, and interviews. The primary data for this study was collected through structured questions from 147 investors in Perambalur. The sampling technique used in this study is snowball sampling. Statistical tools used for data analysis are the chi-square test, ANOVA, correlations, paired sample test, one sample test, and percentage analysis. This survey revealed that bank deposits, life insurance, shares, mutual funds, and gold are the preferred investment options for most investors. The investor should plan the investment properly. The main reason for choosing a particular security for investment is due to the security and principles of investment objectives. Most people invest their money in low-risk investment options. Finally, this study states that investors prefer to invest their money only in safer destinations.

Keywords: Investment Avenues, Safety, Low risk, Return, Attitude

INTRODUCTION

Investors can put their assets in a variety of investment vehicles. Each of these investing options comes with a different level of risk and potential profits. Investors anticipate higher rewards with comparatively fewer risks. The financial experts and advisors in this regard give the investors different suggestions. Nonetheless, every investor has a challenging problem when putting together a suitable portfolio. Financial instruments and other assets are both included in the investment options. Investor attitudes might change over time and from person to person. Also, investors' investment goals will vary. There are a variety of investment options available in the current financial system, making it difficult for anyone to pick between them. Some of these investment options propose higher returns at higher risks, while others propose lower yields at far lower risks. A person's investment behavior is affected down environment. Waiting to be done with high returns some time and period of time level of risk, people invest in many financial products. There are several investment options available today, but the person should do intensive market research. It must be according to his/her desire and situation forced to decide that there must be an investment opportunity chosen. This study is an attempt to analyze the investment attitude of individual investors in the Perambalur district.

LITERATURE REVIEW

Selvan (2022) Research Paper Analyses "Investors' View of Different Investment Opportunities". Many small investors have the means to save and invest in the stock market, gold, real estate, insurance, and postal services. Regarding stocks, insurance, and mutual funds, according to a survey of the investment literature, several studies are based on the investment of researchers in different ways. Investors' perception of various investment opportunities in Vellore, Tamil Nadu and India is yet to be explored. This study, which fills a gap in the knowledge on investment opportunities, is therefore timely. Individual investors who have investment strategies would otherwise be financially impractical by consolidating modest amounts of money into a single investment. The study concluded that elderly and high-income investors prefer to invest only in postal, and bank deposits for security reasons.



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Vanitha et al. (2021) conducted a study to find out how investors perceive the current pandemic situation. The study is descriptive In nature. The sample entity consists of investors in shares and securities of Sri Balaji. Information was collected from 110 investors with well-structured questions. The tools used to analyze the data are an independent T-test, Garrett's ranking, and percentage analysis. Investors realized that market investment is much more important during the closing period. After the first wave of Covid-19, people started investing more in the stock market and learned about its benefits. This survey revealed that most of the respondents like gold and silver and the stock market but they did not prefer mutual funds which are the biggest investment schemes.

Jahan (2020) titled "A Study on Investment Preferences and Behavior of Individual Investors in Warangal District". The most important factors behind investing are the safety of capital, liquidity, stability of income, and growth in value. Various investment options are available like Savings Banks, FD A/c, Government securities, Corporate Bonds, Insurance, Real Estate, Commodities, Shares and MFs, Mutual Funds, and Gold and Silver. All investors invest their excess money within the aforementioned instruments based on their risk appetite. "No pain, no gain" is the golden principle of investment management. You can earn more extra money in a developing economy. Investors cannot avoid risk, but they minimize the risk by investing their money in various safe investments to get reasonable returns. This study led the researcher to conclude that most investors in Warangal prefer bank deposits to gold and silver investments.

Jhansi and Goud (2020) The main objective of this project is to understand "Investor's perception of different ways of investing". Among other things, the study examines the number of investors, which instrument investors prefer for their investments, how they do financial planning, what they want for their financial planning, what is the purpose of financial planning, what is the ratio of risk ranks, what they think about different investment methods. The researcher surveyed 100 people by creating a questionnaire and analyzing investor preferences.

Muneeswaran et al. (2019) entitled "A Study of Investor Behavior in Investment Paths". There are several investment options available to investors. Depending on the risk, and return potential, they have opportunities to use the savings. Investors may behave differently over time, individuality and requirements. Therefore, the study proposes to evaluate the effect of demographic characteristics and information sources on the awareness of investors and risk avoidance regarding different investment methods. A structured survey was designed and administered to a sample of investors. It was observed that rural and urban investors had different risk tolerance and awareness of different investment opportunities. Investor risk levels varied by age and educational background. while married and single investors did not differ in risk awareness or attitudes.

RESEARCH METHODOLOGY

RESEARCH DESIGN

Research planning is a plan for conducting research aimed at answering a research question. The structure of the research is descriptive In nature.

"Research planning is the organization of conditions for data collection and analysis in a way that aims to combine research importance and process economy."

- Sellitzetal

SCOPE OF THE STUDY

The purpose of the research is to understand the various investment options available to people and also the investment options they prefer. This study provides a better overview of the investment opportunities offered to investors by various financial institutions.

OBJECTIVES OF THE STUDY

Primary Objective

Understand investor preferences regarding investment methods.

Secondary Objectives

To discover investment goals and attitudes in a variety of ways.

To analyze investors' awareness of investment opportunities.

Assess investors' preferred investment methods relative to different risk-based investment methods.

Make suggestions based on this research.

SAMPLING DESIGN

The validity of the entire research is based on the systematic data collection method and the analysis of the collected data. The study is based on data collected from individual investors in the Perambalur district. Investors are selected using the snowball sampling technique.

Sample size: 147

SAMPLING METHODS

The Snowball sampling method is used to collect data from the respondents.

SOURCES OF DATA

Primary data

Primary data is collected from primary sources using various methods like surveys, and interviews. The basic information of the study is collected through a structured questionnaire.

STATISTICAL TOOL USED

Data refers to raw information collected from primary sources. This raw data needs filters to transform it into meaningful data, it is compiled, edited, and coded, which means it must go through a process of analysis and interpretation accordingly before its meanings and implications can be understood. Survey research uses different statistical techniques to collect data

- Percentage analysis
- Chi-square test
- Correlation analysis

LIMITATIONS OF THE STUDY

- The data is collected only from the Perambalur district and the conclusions drawn may not apply to other people in different districts.
- Few respondents do not want to express their opinion about their investment and they only presented common opinions about investment opportunities.

DATA ANALYSIS AND INTERPRETATION

AGE - WISE CLASSIFICATION OF RESPONDENTS

Age	No. of Respondents	Percentage
Below 20	7	5%
21 - 30	47	32%
31 - 40	29	20%
41 - 50	41	28%
Above 50	23	15%
Total	147	100%

INTERPRETATION

The above analysis shows that 32% of the respondents are in the age group of 21-30, 28% of the respondents are in the age group of 41-50, 20% of the respondents are in the age group of 31-40, 15% of the respondents are in the age group of above 50 years and 5% of the respondents are less than 20 years old.



GENDER - WISE CLASSIFICATION OF RESPONDENTS

Gender	No. of Respondents	Percentage
Male	81	55%
Female	66	45%
Total	147	100%

INTERPRETATION

The above analysis shows that 55% of the respondents are male and 45% are female.

QUALIFICATION - WISE CLASSIFICATION OF RESPONDENTS

Qualification	No. of Respondents	Percentage
Illiterate	15	10%
SSLC	12	8%
HSC	15	10%
Undergraduate	56	38%
Postgraduate	49	34%
Total	147	100%

INTERPRETATION

From the above analysis, it can be seen that 38% of the respondents are UG, 34% are PG, 10% are HSC, 10% are Illiterate and 8% are SSLC.

OCCUPATION - WISE CLASSIFICATION OF RESPONDENTS

Occupation	No. of Respondents	Percentage
Government employee	30	20%
Self - employed	47	33%
Student	15	10%
Employed in a private firm	34	23%
Professional	21	14%
Total	147	100%

INTERPRETATION

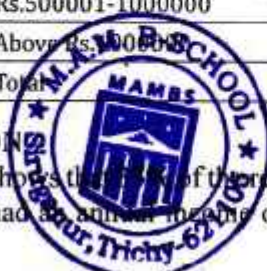
The above analysis reveals that 33% of the respondents are self-employed, 23% of the respondents work in a private company, 20% are government employees, 14% of the respondents are professional and 10% of the respondents are students.

INCOME - WISE CLASSIFICATION OF RESPONDENTS

Income	No. of Respondents	Percentage
Below Rs.50000	49	33%
Rs.50000-200000	37	25%
Rs.200001-500000	27	18%
Rs.500001-1000000	20	14%
Above Rs.1000000	14	10%
Total	147	100%

INTERPRETATION

The above analysis shows that 33% of the respondents had an annual income of fewer than 50,000 rupees, 25% of the respondents had an annual income of 50,000-200,000 rupees, 18% of the respondents had an annual



income of 200,000 rupees -500,000, 14% of the respondents had an annual income of 500001-1000000 rupees and 10 percent of the respondents had an annual income of more than 1000000 rupees.

CHI-SQUARE TEST

Relationship between Age and Income

THE SETTING OF HYPOTHESIS:

H0: There is no significant relationship between Age and Income

H1: There is a significant relationship between Age and Income

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	93.594 ^a	16	.000
Likelihood Ratio	92.435	16	.000
Linear-by-Linear Association	54.937	1	.000
N of Valid Cases	147		
a. 12 cells (48.0%) have an expected count of less than 5. The minimum expected count is .67.			

RESULT

The chi-square value is less than the significant value (0.000 and less than 0.05). It accepts the alternative hypothesis and rejects the null hypothesis. Significant at the 5% level. Therefore concludes that there is an important relationship between age and income.

Relationship between Occupation and Investment Objectives

The Setting of Hypothesis:

H0: There is no significant relationship between occupation and investment objectives

H1: There is a significant relationship between occupation and investment objectives

Chi-Square Tests			
	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	64.113 ^a	16	.000
Likelihood Ratio	62.536	16	.000
Linear-by-Linear Association	.003	1	.958
N of Valid Cases	147		
a. 13 cells (52.0%) have an expected count of less than 5. The minimum expected count is 1.94.			

RESULT

The chi-square value is less than the significant value (0.000 and less than 0.05). It accepts the alternative hypothesis and rejects the null hypothesis. Significant at the 5% level. Therefore, concludes that there is an important link between occupation and investment objectives.

Relationship between Market Information and Investment Hazard

The Setting of Hypothesis:

H0: There is no significant relationship between market information and investment hazard

H1: There is a significant relationship between market information and investment hazard

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	52.755 ^a	16	.000
Likelihood Ratio	50.692	16	.000
Linear-by-Linear Association	27.870	1	.000
N of Valid Cases	147		
16 cells (64.0%) have an expected count of less than 5. The minimum expected count is .27.			

Result

The chi-square value is less than the significant value (0.000 and less than 0.05). It accepts the alternative hypothesis and rejects the null hypothesis. Significant at the 5% level. Therefore, concludes that there is a significant relationship between market knowledge and investment risk.

CORRELATION TEST

Relationship between Experience in investment and Annual savings of the investors

The Setting of Hypothesis:

H0: There is no significant relationship between experience in investment and annual savings of the investors

H1: There is a significant relationship between experience in investment and annual savings of the investors

Correlations			
		Experience in investment	Annualsavings
Experience in investment	Pearson Correlation	1	.729**
	Sig. (2-tailed)		.000
	N	147	147
Annualsavings	Pearson Correlation	.729**	1
	Sig. (2-tailed)	.000	
	N	147	147
**. Correlation is significant at the 0.01 level (2-tailed).			

Result

The chi-square value is less than the significant value (0.000 and less than 0.01). It accepts the alternative hypothesis and rejects the null hypothesis. Significant at the 1% level. Therefore, concludes that there is a significant relationship between investment experience and the annual savings of investors.

FINDINGS

- The survey shows that most investors belong to the age group of 21-30 years.
- Research shows that male investors are very willing to invest their money in investment opportunities.
- Most investors have a bachelor's degree as a qualification.
- Most of the investors belong to entrepreneurs and there are few other professions.
- Most of the investors had an annual income of less than Rs.50,000.
- There is a significant relationship between the age and income of investors.
- There is an important connection between the profession of the investors and investment objectives.

- There is a significant relationship between market data and investment risk.
- There is a significant relationship between investment experience and annual savings of investors.

SUGGESTIONS

- Investors should plan their investments properly keeping in mind their investment objectives.
- Investors should regularly check their investment time and know the current information about the investment.

CONCLUSIONS

The study states that the attitude of investors toward investment opportunities is conducted to analyse the investment choice of people in Perambalur. The analysis of the study was done using a questionnaire. After analyzing and interpreting the data, it can be concluded that some of the respondents are not very familiar with different investment methods. Most of the respondents have less than one year of investment experience, and they preferred to make their investment only for two years. Which is a short-term investment, while most investors only preferred certain types of investments such as bank deposits, life insurance, and gold. The main reason to choose these investments is because of safety and principles. Most people invest their money in a low-risk investment because they are low-risk and make decisions based on the advice of family and friends because they need the guidance of experienced people. The result of the survey shows that investors only want to invest in safer destinations.

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TOOLS & APPLICATIONS IN MOBILE MARKETING

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INTRODUCTION

Tools and applications in mobile marketing refer to the technologies and software that businesses use to reach and engage with customers through mobile devices such as smartphones and tablets. With the increasing prevalence of mobile usage, mobile marketing has become a crucial component of a company's overall marketing strategy. In order to stay competitive and relevant, businesses must adopt and utilize the latest tools and applications to effectively reach and engage with their target audience. Mobile marketing is a crucial component of a company's overall marketing strategy in today's digital landscape. With the rise of mobile usage, businesses are leveraging various tools and applications to engage with their customers on their smartphones and other mobile devices. These tools and applications are constantly evolving to adapt to changes in consumer behaviour and technological advancements, and staying up-to-date with the latest trends is critical to the success of any mobile marketing campaign. By leveraging these tools and applications, businesses can create personalized, immersive experiences for their customers, build brand loyalty, and drive sales. In this context, it's important to understand the latest trends in tools and applications in mobile marketing to stay ahead of the competition and succeed in today's mobile-first world. These tools and applications include mobile-friendly websites, mobile applications, Chatbot's, augmented reality and virtual reality, location-based marketing, and personalization, among others. By leveraging these tools and applications, businesses can create compelling and personalized mobile experiences for their customers, ultimately driving customer engagement and increasing brand loyalty. The recent global pandemic has had a huge impact on how people interact with their favourite brands. For instance, one can no longer simply visit a store's physical location due to various restrictions. That's why online shopping has grown in popularity, thanks to the government restrictions put in place immediately after the pandemic struck. Although normal operations have resumed in many fields, many customers have continued to embrace the new changes in shopping.

What is mobile marketing?

Mobile marketing is the process of advertising products and services to potential customers through devices such as smartphones and tablets. This advertising strategy takes advantage of various features installed in most mobile devices. For instance, push notifications to make it easier for marketers to reach their potential customers, provided they have the brand's app installed. Based on the current statistics, there are over six billion mobile phone users, and that's only to grow even further in the coming years. In fact, it's estimated that the number will increase by another billion in the next three or four years. Apart from playing a huge role in web traffic, smartphones are an essential part of today's online shopping experience. Many online shoppers use their smartphones to accomplish these tasks rather than their desktop computers or laptops. They use these devices to do regular research on products and services before making the actual purchases. Therefore, if you get your mobile marketing strategies right, you'll be able to fuel your business growth within no time.

Understanding Mobile-First Indexing: How is it Useful?

Mobile-first indexing is a process that Google uses to crawl and index web pages. It means that Google is primarily using the mobile version of a website for indexing and ranking purposes. Here are some points that illustrate how understanding mobile-first indexing can be useful:



Improved Visibility: With more than 50% of all web traffic coming from mobile devices, mobile-first indexing helps ensure that a website is optimized for mobile devices. As a result, it increases the visibility of a website to mobile users, which can help drive more traffic and revenue.

Improved User Experience: Mobile-first indexing emphasizes the importance of creating a mobile-friendly website. A mobile-optimized website enhances user experience, making it easier for mobile users to navigate and interact with a site. This can lead to increased engagement and ultimately higher conversion rates.

Better SEO: Mobile-first indexing plays a significant role in search engine optimization (SEO). By optimizing a website for mobile devices, it can improve its ranking on Google's search engine results page (SERP), leading to higher visibility and organic traffic.

Higher Revenue: With mobile users being a significant driver of e-commerce revenue, mobile-first indexing can help increase the revenue of a business. By creating a mobile-optimized website that is optimized for mobile-first indexing, businesses can improve user experience, which can lead to increased conversion rates and revenue.

Competitive Advantage: Mobile-first indexing is becoming more prevalent, and businesses that prioritize mobile optimization can gain a competitive advantage over those that don't. By providing a seamless mobile experience for their customers, businesses can differentiate themselves from their competitors and increase their market share.

In summary, understanding mobile-first indexing can be useful in improving a website's visibility, user experience, SEO, revenue, and competitive advantage. By prioritizing mobile optimization, businesses can stay ahead of the curve and succeed in today's mobile-first world.

SEVEN INFLUENCER OF MOBILE MARKETING

Influencer marketing has become an effective way to promote brands and products. It is a type of marketing where businesses partner with influencers to create sponsored content that is shared with their followers. However, managing an influencer marketing campaign can be time-consuming and challenging without the right tools. Here are seven influencer marketing tools to boost your campaign:

Upfluence: Upfluence is an all-in-one influencer marketing platform that allows businesses to discover, contact, and manage influencers. It features advanced search filters that make it easy to find influencers that align with your brand's values and goals.

BuzzSumo: BuzzSumo is a social media monitoring tool that can help businesses find the most popular content and influencers in their niche. It allows businesses to analyze social media engagement data and identify top influencers in their industry.

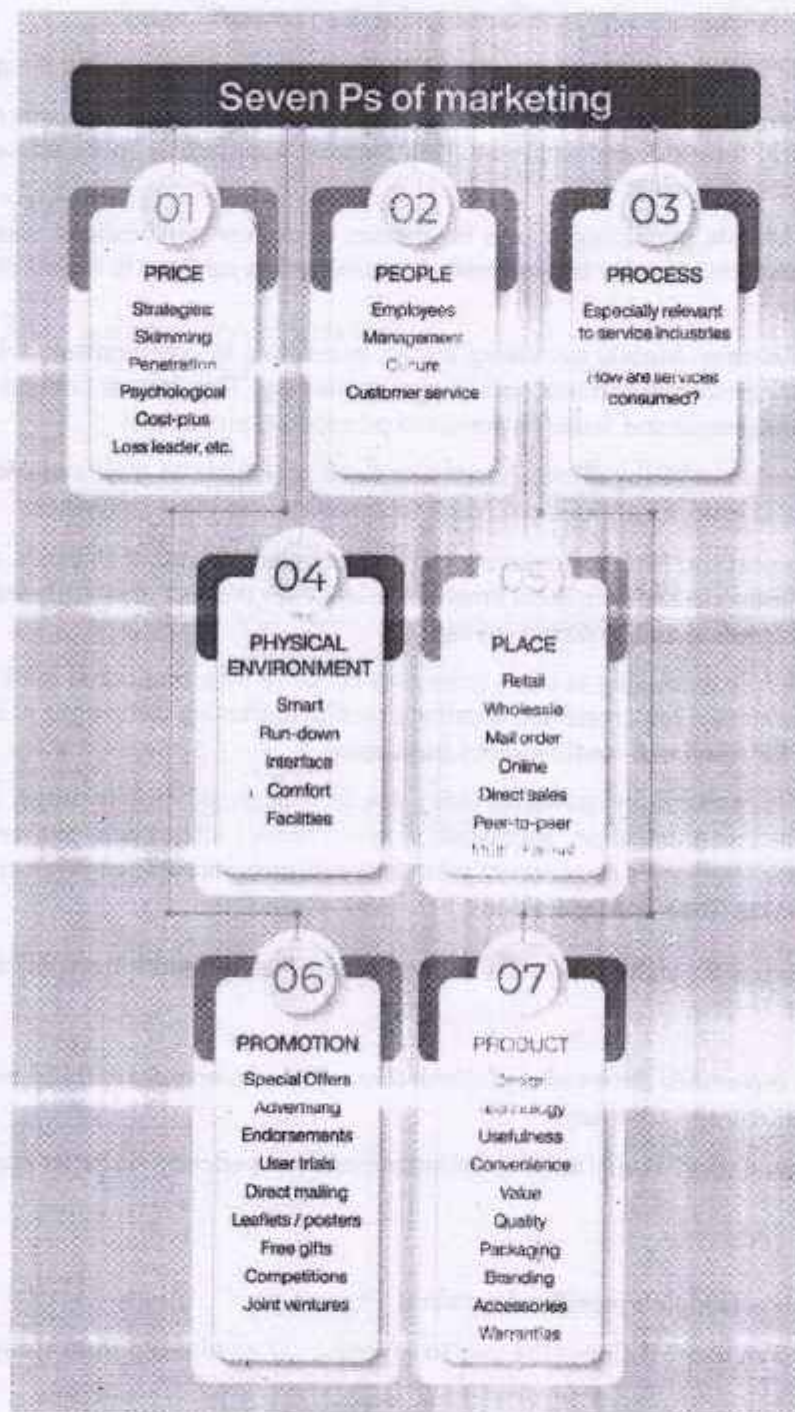
Hootsuite: Hootsuite is a social media management tool that enables businesses to manage their social media accounts and monitor conversations about their brand. It can also be used to track influencer marketing campaigns and measure their impact.

AspireIQ: AspireIQ is an influencer marketing platform that connects businesses with influencers and content creators. It offers a wide range of features, including influencer discovery, influencer management, and campaign reporting.

Grin: Grin is an influencer marketing platform that helps businesses find and manage influencers. It offers a variety of features, including influencer discovery, campaign management, and payment processing.

NeoReach: NeoReach is an influencer marketing platform that offers a range of features, including influencer discovery, campaign management, and reporting. It also features a database of over 3 million influencers across various social media platforms.

TapInfluence: TapInfluence is an influencer marketing platform that offers a suite of tools to manage influencer marketing campaigns. It features advanced analytics and reporting tools that help businesses track the success of their campaigns.



In summary, these tools offer businesses a range of features to manage influencer marketing campaigns effectively. By using them, businesses can streamline the influencer marketing process, identify the right influencers for their brand, and measure the success of their campaigns.



WHY IS MOBILE MARKETING SO POWERFUL TODAY

Mobile marketing has become a powerful tool for businesses to connect with their target audience and drive sales. Here are some reasons why mobile marketing is so powerful today:

Widespread Mobile Usage: Mobile devices are ubiquitous, and people are using them more than ever.

Targeted Advertising: Mobile marketing allows businesses to target their advertising to specific audiences based on demographics, location, and interests. This targeted approach is more effective than traditional marketing methods that cast a wider net.

Personalization: Mobile marketing allows businesses to deliver personalized messages and offers to their audience based on their behavior and interests. Personalization can lead to higher engagement rates and increased brand loyalty.

Instant Communication: Mobile marketing allows businesses to communicate with their audience in real-time through SMS, push notifications, and in-app messaging. This instant communication can lead to increased customer engagement and faster responses to promotions and offers.

Accessibility: Mobile marketing allows businesses to be accessible to their audience at all times. With mobile devices always at hand, businesses can reach their audience anytime, anywhere.

Multichannel Integration: Mobile marketing can be integrated with other channels, such as social media and email, to create a seamless and consistent brand experience for the customer. This multichannel approach can improve brand recognition and customer loyalty.

Cost-Effective: Mobile marketing is often more cost-effective than traditional marketing methods, such as TV or print ads. Businesses can create and distribute mobile marketing campaigns at a lower cost, making it an attractive option for small and medium-sized businesses.

In summary, mobile marketing is powerful today due to widespread mobile usage, targeted advertising, personalization, instant communication, accessibility, multichannel integration, and cost-effectiveness. By leveraging these factors, businesses can connect with their audience, increase engagement, and drive sales.

Top 10 Mobile Marketing Tools & Applications

It will help you to leverage the right mobile marketing strategy that will work for your campaign.

1. FLURRY

What is it? Flurry is a mobile advertising platform that enables companies to build, measure and monetize mobile applications in new app company.

What are the common uses? Flurry helps to optimize mobile experience via better apps and more personal ads.

2 AdMob

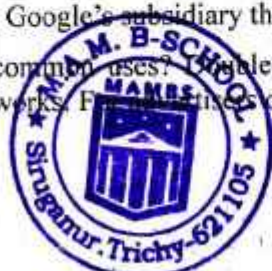
What is it? AdMob is Google's mobile ad network.

What are the common uses? It allows the user to advertise the mobile app from within other apps.

3 Doubleclick

What is it? It is Google's subsidiary that develops and provides Internet ad serving services.

What are the common uses? Doubleclick caters to different needs of different users viz. advertisers, publishers and networks. For advertisers or agencies, it is an ad management solution that allows to manage



the complete scope of digital advertising programmes.

4 mMedia

What is it? mMedia is a comprehensive tool that offers self-service mobile advertising and application monetization facility.

What are the common uses? The set of integrated tools helps to manage the business through one dashboard.

5 Localytics

What is it? Localytics is a paid mobile app analytics tool that caters to apps on iOS, Android, Windows Phone, Blackberry and HTML5 mobile platforms.

What are the common uses? This tool gives unique features such as in-app messaging, life-time value tracking and push messaging.

6 Web Trends Mobile Analytics

What is it? Web Trends mobile analytics tool provides in-depth information about the customer activity in mobile optimized websites and mobile apps for better customer engagement.

7 Countly

What is it? Countly is an open source mobile app analytics tool that supports Android, iOS, Windows Phone and Blackberry apps.

What are the common uses? This tool provides real-time data analytics and brings along direct email and forum support.

8 Amplitude

What is it? Amplitude is a mobile analytics tool for decision makers that act as a real-time mobile analytics platform.

What are the common uses? This tool helps to track daily, weekly and monthly active users. Also, it allows access to following metrics: sessions, retention, device types, platform, country, language, app version, location etc.

9 Mix Panel

What is it? Mix Panel provides both web as well as mobile app analytics solution. It is a great tool to apply in case of a newly launched app.

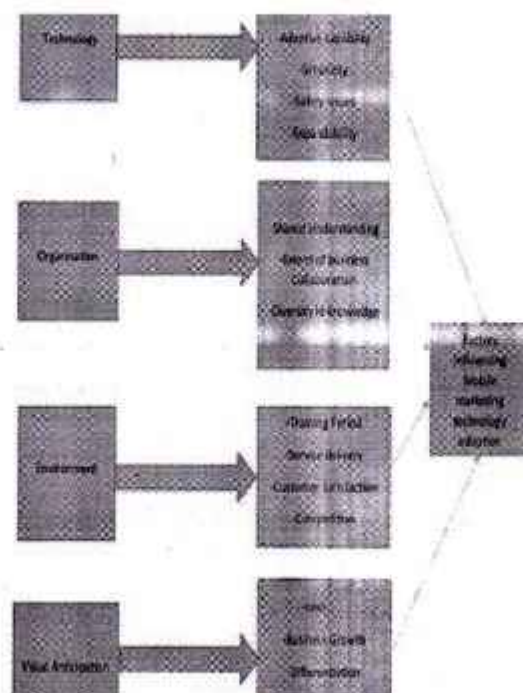
What are the common uses? *This mobile analytics tool enables the user to link web and mobile users so as to understand website's retention statistics.*

10 Upsight

What is it? Upsight provides you the information pertaining to core acquisition, engagement and revenue metrics.

What are the common uses? It gives funnel analysis and provides deeper analysis of those metrics that web analytics do not provide.





Mobile marketing is an essential part of a company's overall marketing strategy. The tools and applications used in mobile marketing are constantly evolving to adapt to changes in consumer behavior and technological advancements.

Mobile-Friendly Websites: With the rise of mobile usage, businesses are prioritizing the development of mobile-friendly websites. This means that the website is optimized for mobile devices, making it easier for users to navigate, read, and interact with the site on their smartphones.

Mobile Applications: Mobile applications are becoming increasingly popular among businesses, as they provide an additional touchpoint for customers to engage with their brand. With the development of low-code and no-code application development tools, it's easier than ever for businesses to create their mobile applications.

Chabot's: Chabot's are becoming more prevalent in mobile marketing, as they provide businesses with a way to communicate with their customers in real-time. They can assist with customer service, offer product recommendations, and help guide users through the buying process.

Augmented Reality (AR) and Virtual Reality (VR): AR and VR are technologies that are becoming more widely used in mobile marketing. They provide businesses with a way to create immersive experiences for their customers, allowing them to engage with products and services in new and innovative ways.

Location-Based Marketing: Location-based marketing is a powerful tool that allows businesses to target customers in specific geographic locations. This is done by using data from a user's mobile device to deliver targeted advertising and promotions to customers in a specific area.

Personalization: Personalization is becoming increasingly important in mobile marketing. By using data and analytics, businesses can create personalized experiences for their customers, providing tailored recommendations, offers, and messaging.

MOBILE MARKETING TOOLS AND TECHNIQUES

Every successful business, whether online or offline, has a set of marketing tools and techniques they use to strengthen their campaigns.



Ring less voicemail

The first on the list of most popular methods in the world of mobile marketing is ring less voicemail. A ringless voicemail sends audio messages to voicemail boxes of potential customers. The reason why it's called ringless is that these messages are delivered without the phone ringing. This is an advantage because, as a business, you'll be able to market your products and services without necessarily being a nuisance to the recipient.

SMS marketing technique and tools

One of the most common mobile marketing techniques is SMS marketing. Basically, this is a form of advertisement that relies on text messages. As a business, once you have the contacts of your potential customers, you can text them and let them know about any new offers.

Keep in mind, though, that SMS texts are very short (not more than 160 characters), which means you can't include everything you want to share in one message.

Social media marketing

Facebook and WhatsApp are the most popular, with more than half of internet users having them on their phones. Other commonly used platforms include Twitter and Instagram, and all of them are home to billions of users. Remember, this arena is filled with a lot of scammers, which makes it hard for users to trust any new account. So, it's your job to earn their trust by using genuine information and generating regular posts. Responding to comments and private messages with the utmost professionalism is another way of ensuring that you attract and keep your customers.

Social media management software

Running social media accounts for your business manually can work without too many obstacles if you're still at the initial phase. However, you're likely to experience rapid growth within the first few months, assuming you have an effective strategy in place. As such, you could end up with overwhelming social media engagements, which might require constant management from your side. This is where social media management tools come in handy.

Location-based marketing

Another important tool in mobile marketing is the GPS function. This feature is found in every modern smartphone. When turned on, it shows the approximate location of the users, which is an important factor if you're looking to focus on location-based mobile marketing.

In-app marketing

Every smartphone user today has several applications installed on their phone for various purposes. The most popular apps today include Instagram, Messenger, Facebook, WhatsApp, and TikTok. Of course, these are designed for communication and socialization, but there are many other apps used in the market today.

MOBILE MARKETING TOOLS OF THE TRADE

How to leverage mobile marketing in the best way for your organization. What tools can you use?

Website Tools: The centerpiece of your inbound marketing strategy is your website. So, the first thing you must consider when embarking on mobile marketing is whether your website is up to the task when it comes to mobile. When a mobile user accesses your site, what does he or she see? Does your website display as it should, and does it load quickly? If not, this needs to be addressed quickly.

Google provides a couple of tools to help you assess your website's mobile friendliness. The easiest to use is the Google Mobile-friendliness test, which you can find here. Simply put in your website URL and a basic Google report pops up, telling you whether your site makes the grade.

SMS Marketing: An incredibly powerful mobile marketing tool that is often overlooked is text messages. Campaign Monitor reports that the open rate for text promotions is 98 percent. SMS marketing messages are read quickly and are guaranteed to reach an audience that has agreed to receive them. What could be better than that kind of marketing tool?

QR Codes: Use QR codes to streamline the user experience on mobile. Medium suggests some quick ways to put QR codes to work.

Social Media Marketing: Though social media marketing is its own sub-category of digital marketing, social media is still a huge part of mobile marketing strategy.

In simple terms, mobile marketing is an act of designing the promotional activity for cell phones, smart phones, tablets and other hand held devices. Mobile Marketing is a wide term that comprises of several areas viz. responsive designing template, mobile advertising, mobile analytics, mobile app creation and much more. Moreover, with the advent of new technologies every now and then, it is imperative for the digital marketers to stay updated and include those technologies into the marketing strategy. To help marketers master mobile marketing, it is all the more important to access mobile marketing tools.

MERITS & DEMERITS OF MOBILE MARKETING APPLICATIONS

Mobile marketing has become an essential component of any digital marketing strategy in the present scenario. Here are some merits of mobile marketing in the present scenario:

Wider Reach: Mobile devices are ubiquitous and have become an integral part of people's lives. With mobile marketing, businesses can reach a wider audience and connect with customers anytime, anywhere.

Personalization: Mobile marketing allows businesses to personalize their marketing efforts based on consumer behaviour and interests. This personalized approach can help businesses build a stronger relationship with their customers and increase engagement.

Targeted Advertising: Mobile marketing allows businesses to target their audience with precision by using data such as demographics, location, and interests. This targeted approach can help businesses optimize their marketing efforts and improve their return on investment.

Multichannel Integration: Mobile marketing can be integrated with other marketing channels, such as social media and email, to create a seamless and consistent brand experience. This integration can help businesses increase brand recognition and customer loyalty.

Real-time Communication: Mobile marketing allows businesses to communicate with their customers in real-time through SMS, push notifications, and in-app messaging. This instant communication can help businesses improve their customer service and drive sales.

Cost-Effective: Mobile marketing can be cost-effective compared to traditional marketing methods such as print and TV ads. Businesses can create and distribute mobile marketing campaigns at a lower cost, making it an attractive option for small and medium-sized businesses.

Data-driven: Mobile marketing provides businesses with real-time data and insights on customer behaviour, which can help businesses optimize their marketing efforts and improve their return on investment.

Widespread Reach: Mobile marketing has the potential to reach a massive audience due to the widespread use of mobile devices. According to a report by Pew Research Center, 96% of Americans own a mobile phone, and 81% own a smartphone.

Targeted Advertising: Mobile marketing allows businesses to target their advertising to specific audiences based on demographics, location, and interests. This targeted approach can result in higher conversion rates and improved return on investment (ROI).

Personalization: Mobile marketing allows businesses to deliver personalized messages and offers to their audience based on their behavior and interests. Personalization can lead to higher engagement rates and increased brand loyalty.

Instant Communication: Mobile marketing allows businesses to communicate with their audience in real-time through SMS, push notifications, and in-app messaging. This instant communication can lead to increased customer engagement and faster responses to promotions and offers.

Convenience: Mobile marketing is convenient for both businesses and customers. Businesses can easily create and distribute mobile campaigns, while customers can receive and engage with these campaigns on their mobile devices at their convenience.

Measurable Results: Mobile marketing allows businesses to track and measure the success of their campaigns using analytics and reporting tools. This data can be used to refine and optimize future campaigns for better results.

In summary, mobile marketing offers widespread reach, targeted advertising, personalization, instant communication, convenience, cost-effectiveness, and measurable results. By leveraging these benefits, businesses can connect with their audience, increase engagement, and drive sales.

DEMERITS

While mobile marketing has many advantages, there are also some potential drawbacks that businesses should be aware of. Here are some demerits of mobile marketing in the present scenario:

Ad Fatigue: With so many businesses using mobile marketing, consumers may become overwhelmed and develop ad fatigue, leading them to tune out or ignore mobile ads.

Privacy Concerns: Mobile marketing requires collecting and storing customer data, which can raise privacy concerns. Businesses must be transparent about their data collection and storage practices to maintain customer trust.

Technical Limitations: Mobile devices have limitations in terms of screen size, processing power, and connectivity, which can affect the user experience of mobile marketing campaigns. Businesses need to optimize their campaigns for mobile devices to ensure they are effective.

Fragmented Audience: The audience for mobile marketing is fragmented across different devices, operating systems, and apps, making it challenging for businesses to reach their target audience effectively.

Competitive Landscape: With so many businesses using mobile marketing, competition can be fierce. Businesses need to develop compelling and differentiated campaigns to stand out from the crowd.

Security Risks: Mobile marketing campaigns can be vulnerable to security risks such as hacking, phishing, and malware. Businesses must take appropriate measures to protect their campaigns and customer data.

Dependence on Technology: Mobile marketing is dependent on technology, which can lead to technical glitches, outages, and other issues that can impact the effectiveness of mobile campaigns.

Ad Fatigue: With the rise of mobile marketing, users are being bombarded with more ads than ever before. This can lead to ad fatigue and a negative user experience, which can harm brand reputation and lead to lower engagement rates.

Privacy Concerns: Mobile marketing relies on collecting and using user data to deliver targeted ads, which can raise privacy concerns. In addition, the General Data Protection Regulation (GDPR) and other data privacy regulations require businesses to be transparent about how they use user data, which can add complexity and cost to mobile marketing campaigns.

Technical Limitations: Mobile devices come in many different screen sizes, resolutions, and operating systems, which can make it challenging to create and optimize mobile marketing campaigns that work across all devices. This can require additional resources and expertise to ensure campaigns are effective.

Limited Screen Space: Mobile devices have limited screen space, which can make it challenging to convey complex messages or visuals effectively. This can lead to lower engagement rates and reduced effectiveness of mobile marketing campaigns.

Interruption Marketing: Mobile marketing often relies on interrupting the user's mobile experience with ads or notifications, which can be seen as intrusive and annoying. This can lead to lower engagement rates and a negative user experience.

Competition: With the rise of mobile marketing, businesses are facing increased competition for user attention and engagement. This can make it more difficult to stand out and achieve the desired results from mobile marketing campaigns.

In summary, while mobile marketing offers many benefits, there are also potential drawbacks such as ad fatigue, privacy concerns, technical limitations, limited screen space, interruption marketing, and competition. It's important for businesses to carefully consider these factors and balance the benefits and drawbacks of mobile marketing when planning and executing their campaigns.

FINDINGS & SUGGESTIONS

- Here are some findings and suggestions for tools and applications of mobile marketing in the present scenario:

Findings:

- **Mobile-first indexing:** As mentioned earlier, mobile-first indexing has become an essential aspect of mobile marketing. Therefore, businesses should ensure that their websites are mobile-friendly and optimized for mobile devices.
- **Social Media Platforms:** Social media platforms, such as Instagram, TikTok, and YouTube, have become increasingly popular for mobile marketing. Businesses should leverage these platforms to reach a wider audience and engage with customers.
- **In-App Advertising:** In-app advertising has become an effective way to target users who are more likely to engage with a brand or make a purchase. Therefore, businesses should consider leveraging in-app advertising to target users more effectively.
- **Chatbots:** Chatbots have become increasingly popular in mobile marketing, as they can provide instant customer service and support. Businesses should consider implementing chatbots to improve their customer experience.

SUGGESTIONS:

- **Personalization:** Personalization is an essential aspect of mobile marketing. Therefore, businesses should aim to create personalized experiences for their customers to improve engagement rates and build brand loyalty.
- **User Experience:** User experience is critical in mobile marketing. Businesses should focus on creating a user-friendly experience that is optimized for mobile devices.
- **Analytics:** Analytics is an essential tool in mobile marketing. Businesses should use analytics to track the performance of their campaigns and make data-driven decisions to improve their results.
- **Video Marketing:** Video marketing has become increasingly popular in mobile marketing. Businesses should consider using video marketing to reach their audience more effectively and improve engagement rates.
- **Influencer Marketing:** Influencer marketing has become an effective way for businesses to reach their target audience. Businesses should consider partnering with influencers to promote their products or services and reach a wider audience.

In summary, businesses should focus on personalization, user experience, analytics, video marketing, and influencer marketing to improve the effectiveness of their mobile marketing campaigns. By leveraging these



Role of Teacher Collaboration in Improving Student Outcomes in Private Institutions

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Abstract

Teachers can collaborate in various ways to improve student outcomes. Effective collaboration among educators can enhance teaching practices, promote a more supportive learning environment, and ultimately lead to better academic and holistic development for students. This research study explores the significant role of teacher collaboration in enhancing student outcomes within private educational institutions. Private schools are often characterized by smaller class sizes, more flexible curricula, and increased autonomy, making them fertile ground for innovative teaching practices and collaborative approaches. This research aims to examine the various dimensions of teacher collaboration and its impact on student academic achievement, personal development, and overall well-being. A diverse sample of teachers and administrators from private institutions is involved in the research. The quantitative analysis focuses on measuring the frequency and extent of teacher collaboration, its structures, and its perceived effects on student outcomes. Meanwhile, qualitative data elucidate the nuances of collaboration practices, including barriers and facilitators. Preliminary findings indicate that teacher collaboration within private institutions positively correlates with improved student outcomes. Collaborative activities such as lesson planning, peer mentoring, and cross-disciplinary teamwork are prevalent and contribute to a more enriched educational experience. The qualitative data highlight the importance of trust, communication, and a shared vision among educators in fostering effective collaboration. The research suggests that private institutions should invest in professional development opportunities, collaborative platforms, and a supportive organizational culture to further enhance teacher collaboration. Additionally, educators and school leaders should work collectively to address challenges like time constraints and varying teaching philosophies that may hinder effective collaboration.

Keywords: Teacher Collaboration, Student Outcomes, Private Institutions, Professional Development

Introduction

Private educational institutions have historically garnered recognition for their dedication to achieving high academic standards, frequently distinguished by smaller class numbers, progressive curricula, and an emphasis on tailored learning opportunities. In recent times, there has been a growing focus on the significance of teacher collaboration in private educational institutions as a means to improve student results. This introduction establishes the context for comprehending the importance of teacher collaboration in private schools and its capacity to enhance academic performance, individual growth, and the general welfare of students. Throughout history, private educational institutions, encompassing primary, secondary, and postsecondary levels, have consistently emphasized their commitment to delivering education of exceptional quality. These educational establishments frequently experience a higher degree of independence in comparison to public schools, enabling them to have more flexibility in designing curricula and implementing teaching methods. Nevertheless, the autonomy enjoyed by private schools imposes a substantial need on them to consistently engage in innovation and adaptability in order to cater to the ever-changing requirements of their student body.

The Evolving Nature of the Educational System

Over the course of the past few years, there has been a significant shift occurring across the educational environment. New requirements have been imposed on educational institutions as a result of rapid technological advancements, shifting cultural expectations, and an increasing emphasis on holistic development. As a consequence of this, private schools are confronted with the problem of not only preserving their reputation for



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academic distinction but also ensuring that students acquire the knowledge, abilities, and characteristics that are essential for success in the 21st century.

The Emergence of Collaborative Efforts Between Teachers

The growing emphasis on teacher collaboration inside private institutions is one response to the changing demands that are being placed on educational providers (Prasad, C., 2015). Collaboration among teachers entails educators working together and exchanging ideas, resources, and instructional methodologies with the goal of enhancing the educational experience of their pupils. This collaborative approach acknowledges that it is impossible for a single instructor to possess all of the information and abilities necessary to effectively address the varied requirements of today's students in a classroom setting.

Research on teacher collaboration should be done for the following reasons

Although there is widespread agreement regarding the advantages of teacher collaboration, there is a pressing need for a more in-depth comprehension of the ways in which it manifests itself in private educational institutions. The purpose of this study is to investigate the many facets of the function that teacher collaboration plays in private educational institutions and how it contributes to improved student outcomes.

Review Literature

The research on teacher collaboration has received considerable interest in the field of educational research, as it holds the potential to have a large influence on student outcomes. The present literature review examines multiple facets of teacher collaboration and its impact on student achievement, personal growth, and overall welfare. In a study conducted by Hattie (2012), a meta-analysis was performed to examine the effects of curriculum alignment facilitated by teacher collaboration on student achievement. The findings of this analysis revealed a significant favorable influence on student academic performance. Educators who engage in collaborative efforts to establish a cohesive curriculum across several grade levels are more likely to exert a significant impact on students' academic progress. DuFour and Eaker (1998) underscored the significance of data-driven training within professional learning communities. According to their argument, the collaborative analysis of student data by teachers, followed by the adjustment of teaching tactics, leads to a substantial enhancement in student accomplishment. In their study, Ingersoll and Strong (2011) examined the impact of teacher cooperation on the personal and professional growth of novice teachers, emphasizing the role of mentoring and advice provided by experienced educators. The authors found that such collaborative efforts had a favorable influence on the development of novice teachers, ultimately leading to improved outcomes for students. Bryk and Schneider (2002) emphasized the importance of trust within the context of instructors and the broader school community. A culture of collaboration founded on trust cultivates comprehensive support systems for students, thereby augmenting their general well-being and facilitating their personal growth. The study conducted by Durlak et al. (2011) provided evidence to support the notion that when teachers collaborate in the implementation of social and emotional learning programs, it has favorable results for students, such as enhanced well-being and increased social skills. In their study, Allensworth and Easton (2007) emphasized the significance of teacher collaboration in establishing a conducive atmosphere that mitigates dropout rates and enhances the general well-being of students.

Research Methodology

The study is descriptive in nature. Primary data has been collected from parents & teachers as well. Total 90 respondents have taken with the help of convenience sampling from 02 private institutions. Secondary data utilized from published articles, journals, thesis etc.

Objective of the study

- To explore the significant role of teacher collaboration in enhancing student outcomes within private educational institutions.
- To study the various dimensions of teacher collaboration and its impact on student academic achievement, personal development, and overall well-being.
- To analyze the diverse dimensions of teacher collaboration & its impact on student outcomes



Hypothesis of the study

H1 : Teacher collaboration within private institutions not positively correlates with improved student outcomes

H1: Teacher collaboration within private institutions positively correlates with improved student outcomes

Significance of the Study

This research holds significance for private educational institutions, teachers, administrators, policymakers, and researchers alike. By delving into the intricate dynamics of teacher collaboration, this study aims to provide actionable insights that can inform practices, policies, and professional development initiatives in private schools. Ultimately, the findings are expected to contribute to the ongoing effort to enhance student outcomes and ensure that private institutions remain at the forefront of educational excellence. In the subsequent sections of this research, we will explore the diverse dimensions of teacher collaboration, analyze its impact on student outcomes, investigate the challenges and opportunities it presents, and offer recommendations for fostering effective collaboration within private educational institutions. Through this comprehensive exploration, we aim to shed light on the pivotal role of teacher collaboration in shaping the future of education in private institutions.

Teacher Collaboration & Its Impact - Student Academic Achievement, Personal Development & Overall Well-Being

The collaboration among teachers can exert a significant influence on the academic accomplishments, personal growth, and general welfare of students.

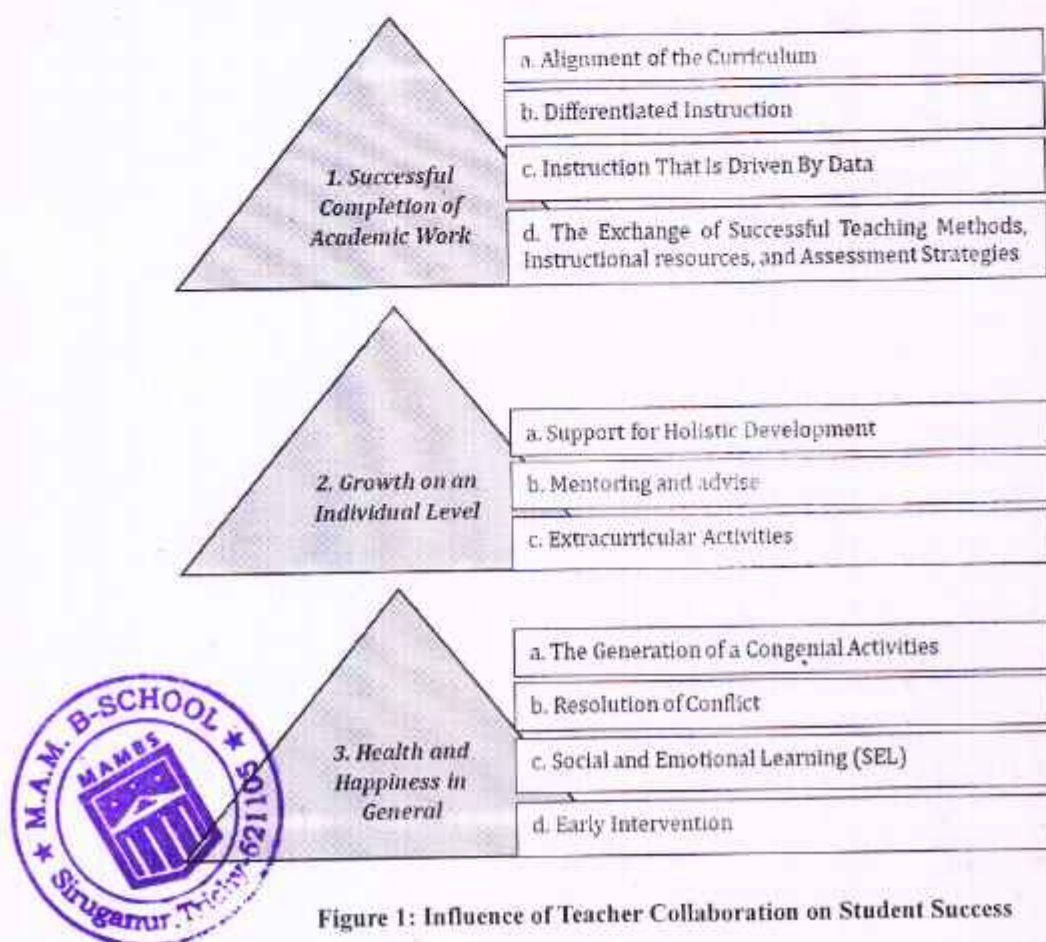


Figure 1: Influence of Teacher Collaboration on Student Success

The following impact of teacher collaboration on many elements of student performance:

1. Successful Completion of Academic Work:

- a. Alignment of the Curriculum** Through teacher collaboration, educators are able to align their curricula, making it more likely that subjects and skills will be presented and reinforced in the same manner across all grade levels and curricular areas. Because of this consistency, pupils' comprehension of and capacity to remember crucial concepts are improved.
- b. Differentiated Instruction:** Teachers who work together can discuss techniques for differentiating their lessons to better suit the requirements of their students who have varying backgrounds and interests. This helps to guarantee that all students, regardless of their skills, have the support they require to be successful in their studies.
- c. Instruction That Is Driven By Data:** The collaborative analysis of student data helps teachers to identify students who are having difficulty learning and to personalize interventions to meet the particular educational requirements of these students. This focused strategy has the potential to result in enhanced academic performance.
- d. The Exchange of Successful Teaching Methods, Instructional resources, and Assessment Strategies:** Teachers can exchange (Lac, T. D., 2015) their most effective teaching methods, resources, and strategies when they work together. This sharing of ideas enables educators to embrace successful approaches that have been demonstrated to improve the learning experiences of their students.

2. Growth on an Individual Level

- a. Support for Holistic Development:** Collaborating instructors can take a holistic approach to the development of their students, addressing not only the academic demands of their pupils but also the socio-emotional and behavioral aspects of their development. They have the ability to recognize pupils who might benefit from additional help or interventions.
- b. Mentoring and advise:** Experienced teachers can act as mentors to their less-seasoned colleagues, assisting the less-seasoned instructors in navigating the problems of teaching and providing advise on encouraging positive attitudes, values, and behaviors in their students.
- c. Extracurricular Activities:** Collaboration can extend to extracurricular programs, like as clubs, sports teams, or artistic projects, where teachers work together to organize the programs. The kids' personal growth and development of character can benefit from participating in these activities.

3. Health and Happiness in General

- a. The Generation of a Congenial Setting:** When educators work together effectively, they generate a congenial atmosphere in the classroom; one in which students experience feeling respected and understood. The general health and sense of belonging of the pupils is improved as a result of the supportive atmosphere that is provided.
- a. Resolution of Conflict:** Collaborative efforts among educators can assist in recognizing and resolving disputes or other difficulties that may have an impact on the students' well-being. The ability of educators to create a learning environment that is more harmonious and free of stress is enhanced when they collaborate to discover solutions to problems.
- c. Social and Emotional Learning (SEL):** Collaborative efforts can be focused on the implementation of SEL programs that teach students essential skills such as self-awareness, empathy, and responsible decision-making. SEL programs can be found in schools. These abilities contribute to a person's emotional well-being as well as their ability to maintain healthy relationships.
- d. Early Intervention:** When teachers work together, they are better able to recognize the indicators of stress, anxiety, and other difficulties that their kids may be experiencing. It is possible for these concerns



to not have a negative impact on a student's overall well-being if early intervention and support are provided.

Data Analysis & Discussion

Dimension 01: Teacher Collaboration in Curriculum Planning and Development

Statements Under Dimension 01	N = 90	%	Responses
#Statement(A): Collaborative curriculum development lets teachers coordinate lessons and assessments for a unified learning experience.	69	76.67	Out of 90 respondents, total 69 responses received in favor of #Statement (A).
#Statement(B): Teachers from different disciplines and grades can collaborate on a more comprehensive curriculum.	78	86.67	Out of 90 respondents, total 78 responses received in favor of #Statement (B).

**** if $N > 45$, it is considered agree & significant for the statement & if $N < 45$, assuming disagree statements & insignificant**

Dimension 02 : Teacher Collaboration in Professional Learning Communities (PLCs)

Statements Under Dimension 02	N = 90	%	Responses
#Statement(C): Teachers meet regularly in PLCs to discuss teaching practices, student progress, and assessment data.	83	92.22	Out of 90 respondents, total 83 responses received in favor of #Statement (C).
#Statement(D): These forums help teachers identify areas for growth and share best practices.	64	71.11	Out of 90 respondents, total 64 responses received in favor of #Statement (D).

**** if $N > 45$, it is considered agree & significant for the statement & if $N < 45$, assuming disagree statements & insignificant**

Dimension 03 : Teacher Collaboration in Cross-Disciplinary Projects

Statements Under Dimension 03	N = 90	%	Responses
#Statement(E): Help teachers from different subjects work together on interdisciplinary projects.	82	91.11	Out of 90 respondents, total 82 responses received in favor of #Statement (E).
#Statement(F): Students learn to connect subjects and think critically with this method.	86	95.55	Out of 90 respondents, total 86 responses received in favor of #Statement (F).

**** if $N > 45$, it is considered agree & significant for the statement & if $N < 45$, assuming disagree statements & insignificant**

Dimension 04 : Teacher Collaboration in Data Analysis and Assessment

Statements Under Dimension 04	N = 90	%	Responses
#Statement(G): Teacher collaboration on student assessment data analysis might reveal patterns, strengths, and problems.	58	64.44	Out of 90 respondents, total 58 responses received in favor of #Statement (G).
#Statement(H): Data-driven insights and solutions for student needs can lead to focused responses.	61	67.77	Out of 90 respondents, total 61 responses received in favor of #Statement (H).

**** if $N > 45$, it is considered agree & significant for the statement & if $N < 45$, assuming disagree statements & insignificant**

Dimension 05 : Teacher Collaboration in Peer Observation and Feedback

Statements Under Dimension 05	N = 90	%	Responses
#Statement(I): Teachers can improve their teaching by observing and giving feedback on each other's classes.	35	38.88	Out of 90 respondents, total 35 responses received in disfavor of #Statement (I).
#Statement(J):	53	58.87	Out of 90 respondents, total 53 responses received in favor of #Statement (J).

Peer observations can inspire new teaching methods and best practices.			
** if $N > 45$, it is considered agree & significant for the statement & if $N < 45$, assuming disagree statements & insignificant			

Dimension 06 : Teacher Collaboration in Co-Teaching

Statements Under Dimension 06	N = 90	%	Responses
#Statement(K): Two or more teachers share responsibilities in a classroom, offering different teaching styles and skills.	41	45.55	Out of 90 respondents, total 41 responses received in disfavor of #Statement (K).
#Statement(L): Co-teaching can benefit students with various learning requirements.	33	36.67	Out of 90 respondents, total 33 responses received in disfavor of #Statement (L).
** if $N > 45$, it is considered agree & significant for the statement & if $N < 45$, assuming disagree statements & insignificant			

Dimension 07 : Teacher Collaboration in Professional Development Workshops:

Statements Under Dimension 07	N = 90	%	Responses
#Statement(M): Teachers can learn about innovative pedagogical methods, technology, and educational research during workshops and courses.	69	76.67	Out of 90 respondents, total 69 responses received in favor of #Statement (M).
#Statement(N): Applying what they've learnt in the classroom benefits teachers and students.	76	84.44	Out of 90 respondents, total 76 responses received in favor of #Statement (N).
** if $N > 45$, it is considered agree & significant for the statement & if $N < 45$, assuming disagree statements & insignificant			

Dimension 08 : Teacher Collaboration in Mentoring & New Teacher Support

Statements Under Dimension 08	N = 90	%	Responses
#Statement(O): New instructors can learn from experienced teachers and help them overcome teaching obstacles.	52	57.77	Out of 90 respondents, total 52 responses received in favor of #Statement (O).
#Statement(P): Collaboration can help novice teachers establish good teaching practices faster.	71	78.88	Out of 90 respondents, total 71 responses received in favor of #Statement (P).
** if $N > 45$, it is considered agree & significant for the statement & if $N < 45$, assuming disagree statements & insignificant			

Dimension 09 : Teacher Collaboration in Parent & Community Engagement

Statements Under Dimension 09	N = 90	%	Responses
#Statement(Q): Teachers, parents, and the community can work together to improve student learning.	89	98.87	Out of 90 respondents, total 89 responses received in favor of #Statement (Q).
#Statement(R): Parent-teacher conferences, community outreach, and school activities might be combined.	78	86.67	Out of 90 respondents, total 78 responses received in favor of #Statement (R).
** if $N > 45$, it is considered agree & significant for the statement & if $N < 45$, assuming disagree statements & insignificant			

Dimension 10 : Teacher Collaboration in Technology Integration

Statements Under Dimension 10	N = 90	%	Responses
#Statement(S): Work together to improve classroom learning with technology.	86	95.55	Out of 90 respondents, total 86 responses received in favor of #Statement (S).



#Statement(T): Online and blended learning materials, tools, and practices are more useful when shared.	74	82.22	Out of 90 respondents, total 74 responses received in favor of #Statement (T).
** if $N > 45$, it is considered agree & significant for the statement & if $N < 45$, assuming disagree statements & insignificant			

Findings of the study

- Teachers are encouraged to get together to share and critique their classroom strategies, plan for their own professional growth, and evaluate their own performance.
- Open communication, trust, and a shared commitment to the success of students are necessary components of an effective teacher cooperation.
- When educators collaborate, they are better able to draw upon the wealth of information and experience that they possess as a group to produce a classroom setting that is more stimulating and productive, which ultimately results in better outcomes for students.
- Create teams to tackle certain problems or obstacles that are relevant to the education or conduct of the students.
- Conceive, design, and put the solutions into action together, and then evaluate their success on a regular basis.
- Teachers with more experience can act as mentors for newer or less experienced colleagues, providing them with direction and support as they navigate the obstacles of the profession.
- This partnership has the potential to speed up the process by which new teachers acquire successful teaching practices.

Conclusion

The results of students are significantly influenced by the way in which teachers work together. A better academic accomplishment can be achieved by educators when they collaborate on aligning curricula, providing differentiated instruction, and implementing interventions informed by data. Additionally, they are able to promote the students' personal growth by acting as mentors and offering holistic counseling. In addition, the collaboration of teachers helps to create a school climate that is loving and supportive of children, as well as meets their social and emotional needs. This contributes to the general well-being of the students. This study's findings shed light on the significant role that teacher collaboration plays in boosting student outcomes in private educational institutions. Private schools can maintain their tradition of providing kids with an education of the highest caliber and improve their pupils' readiness for the rigors of the 21st century if they create an atmosphere that encourages collaboration and places importance on the educators' combined experience. In order to delve deeper into specific collaboration practices and their direct impact on many areas of student achievement, further research is required. When teachers are able to effectively work with one another, they are ultimately able to contribute to the overall growth and success of their pupils. The review papers that have been discussed thus far collectively highlight the essential role that teacher cooperation plays in improving student outcomes. Through curricular alignment and instruction that is data-driven, collaboration has the potential to positively affect students' academic achievements. Additionally, it can promote the individual's growth and development by providing mentoring and other holistic support systems. In addition, teamwork among teachers helps students in general by creating a more encouraging atmosphere in the classroom and enhancing students' capacity for social and emotional learning. It is becoming increasingly clear, as researchers continue their investigation of collaborative practices and implement them, that collaboration is still one of the most important factors in improving student achievement.

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MATHEMATICAL ANALYSIS OF A PREY-PREDATOR SYSTEM USING NEW APPROACH TO HOMOTOPY PERTURBATION METHOD

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Abstract

A continuous-time prey-predator system with susceptible prey, infected prey and predator is considered, and solved analytically to obtain approximate analytical expressions for the susceptible prey population, infected prey population, and predator population. The analytical expressions derived are compared with the numerical simulation obtained using MATLAB and is found to make a very good fit.

Keywords

Nonlinear mathematical model; Prey-predator system; New approach to Homotopy perturbation method; Numerical solution.

1. Introduction

As biomasses are generated out of their resource masses, predator-prey models are perhaps the foundation of bio- and ecosystems. For no other reason than to find resources to support their quest for survival, species compete, change, and disperse. They can take the shapes of resource-consumer, plant-herbivore, parasite-host, tumour cells (virus)-immune system, susceptible-infectious interactions, etc. depending on their respective settings of applications. Since they deal with common loss-win interactions, they might have uses outside of ecosystems.

Further analysed, interactions that at first glance appear to be competitive are frequently actually some types of predator-prey interactions. The incidence of numerous infectious diseases among the bulk of the ecosystem's inhabitants has been the subject of extensive research. The effects of such infectious diseases on the ecological system are a crucial



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field of study for ecologists and mathematics. In recent decades, the integration of ecology and epidemiology has been both difficult and fascinating. By their very nature, species are always reliant on other species for food and habitat. It competes with other species and is eaten by them, as well as being the source of contagious diseases. Differential equation-based mathematical models are used to examine the dynamical behaviour of these systems. [1].

The linear and non-linear differential equations that model various phenomena in different fields of Sciences are solved analytically using efficient asymptotic methods[2], such as the homotopy perturbation method [3], homotopy analysis method [4,5], Adomian decomposition method[6], wavelet transform method[7], Akbari-Ganji's method[8] etc.

The homotopy perturbation approach, which can transform non-linear differential equations into some straightforward linear differential equations, is a potent and effective tool for addressing non-linear problems. Ji-Huan He first suggested using this approach in 2003. This method has the notable advantage of offering an approximative analytical solution to a variety of non-linear problems in Applied Sciences without the need for a small parameter in the equation. In most circumstances, the homotopy perturbation approach produces a very quick convergence of the solution series; typically, a small number of iterations results in very precise solutions.

Recently, a new method of solving non-linear differential equations using the Homotopy perturbation method[9–12] has been developed. The main objective of the current study is to solve a previously developed Prey-Predator model involving a system of non-linear ordinary differential equations using the new approach to homotopy perturbation method.

2. Mathematical formulation of the problem

In a previously developed mathematical SIR model by Kalyan Das et al[1], considered is a continuous time prey-predator system that consists of susceptible prey, infected prey, and predator. It is hypothesised that only infected prey is predated and that the susceptible prey population evolved in accordance with the logistic law. Only the prey population may pass on the sickness, and those who are affected do not recover. The model developed by the authors follows:

$$\frac{dx}{dt} = x \left(1 - \frac{x}{K} \right) - \frac{axy}{1+x} - h_1 x \quad (1)$$

$$\frac{dy}{dt} = \frac{axy}{1+x} - byz - h_2 y \quad (2)$$

$$\frac{dz}{dt} = fyz - dz \quad (3)$$

with the following initial conditions:

$$x(0) = x_0 \geq 0, y(0) = y_0 \geq 0, z(0) = z_0 \geq 0 \quad (4)$$

Here, the parameters $x(t)$, $y(t)$, and $z(t)$ denote the susceptible prey, infected prey, and predator populations, respectively. The parameters a , d , b , f , h_1 , and h_2 denote the rate of transmission from the susceptible to infected prey population, death rate of predators, searching efficiency of the predator, conversion efficiency rate of the predator, and constant harvesting rate of susceptible prey and infected prey, respectively.

3. Approximate analytical solution to eqns. (1) to (4) using new approach to homotopy perturbation method

The homotopy is constructed for eqns (1) to (3) as follows

$$(1-p) \left[\frac{dx}{dt} - x \left(1 - \frac{x}{K} \right) + \frac{axy_0}{1+x_0} + h_1 x \right] + p \left[\frac{dx}{dt} - x \left(1 - \frac{x}{K} \right) + \frac{axy}{1+x} + h_1 x \right] = 0 \quad (5)$$

$$(1-p) \left[\frac{dy}{dt} - \frac{ax_0 y}{1+x_0} + byz + h_2 y \right] + p \left[\frac{dy}{dt} - \frac{axy}{1+x} + byz + h_2 y \right] = 0 \quad (6)$$

$$(1-p) \left[\frac{dz}{dt} - fy_0 z + dz \right] + p \left[\frac{dz}{dt} - fyz + dz \right] = 0 \quad (7)$$

The approximate solutions of eqns. (5) to (7) are given by

$$x = x_0 + px_1 + p^2 x_2 + \dots \quad (8)$$

$$y = y_0 + py_1 + p^2 y_2 + \dots \quad (9)$$

$$z = z_0 + pz_1 + p^2 z_2 + \dots \quad (10)$$

Substituting eqns. (8) to (10) in eqns.(5) to (6) , equating the coefficients of p^0 and solving them, we get

$$x \approx \frac{x_0 K ((h_1 - 1)x_0 + ay_0 + h_1 - 1)}{(x_0^2 + (1 + K(h_1 - 1))x_0 + K(ay_0 + h_1 - 1))e^{\frac{((h_1 - 1)x_0 + ay_0 + h_1 - 1)t}{1+x_0}} - x_0(x_0 + 1)} \quad (11)$$

$$y \approx y_0 e^{\frac{bx_0(1+x_0)^{-1/2} + ((-fy_0 + d)(a-h_2)y - bz_0)x_0 - h_2((-fy_0 + d) - bz_0)}{(1+x_0)(-fy_0 + d)}} t} \quad (12)$$

$$z \approx z_0 e^{(fy_0 - d)t} \quad (13)$$

4. Numerical simulation

Equations (1) through (4) are quantitatively solved. The initial value problem has been solved numerically using the MATLAB function graphmain3. The numerical simulation is contrasted with the analytical results that were obtained.



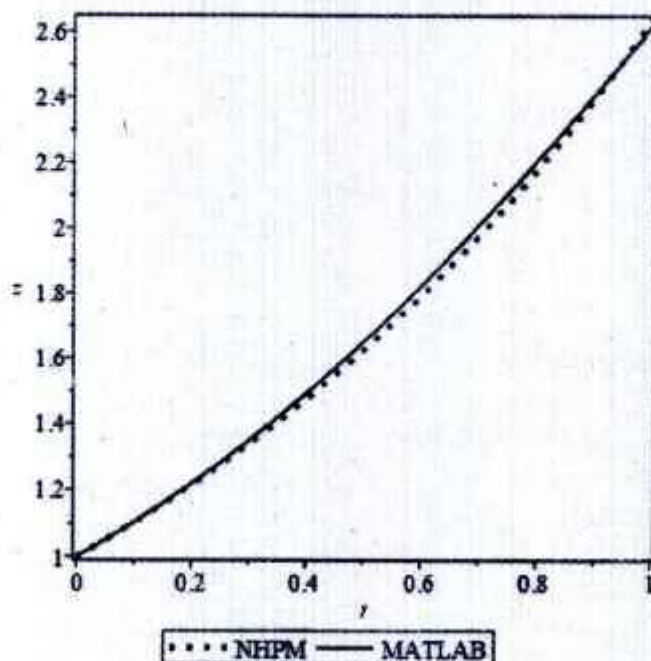


Fig 3. Plot of predator population versus time for $a=1.5$, $b=0.3$, $f=0.65$, $d=0.2$, $h_1=0.5$, $h_2=0.5$, $x_0=2$, $y_0=1.8$, $z_0=1$, $K=8$. The dotted lines represent the analytical solution and solid lines represent the numerical simulation.

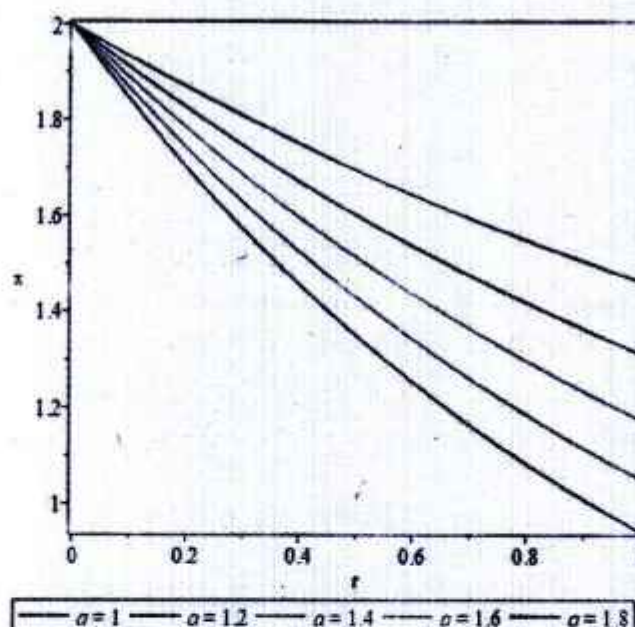


Fig 4. Plot of susceptible prey population versus time for $b=0.3$, $f=0.65$, $d=0.2$, $h_1=0.5$, $h_2=0.5$, $x_0=2$, $y_0=1.8$, $z_0=1$, $K=8$ and various values of a .

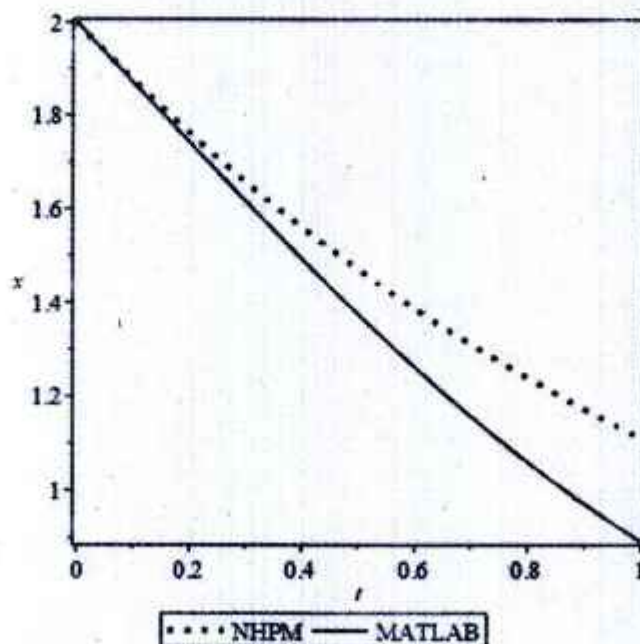


Fig 1. Plot of susceptible prey population versus time for $a=1.5$, $b=0.3$, $f=0.65$, $d=0.2$, $h_1=0.5$, $h_2=0.5$, $x_0=2$, $y_0=1.8$, $z_0=1$, $K=8$. The dotted lines represent the analytical solution and solid lines represent the numerical simulation.

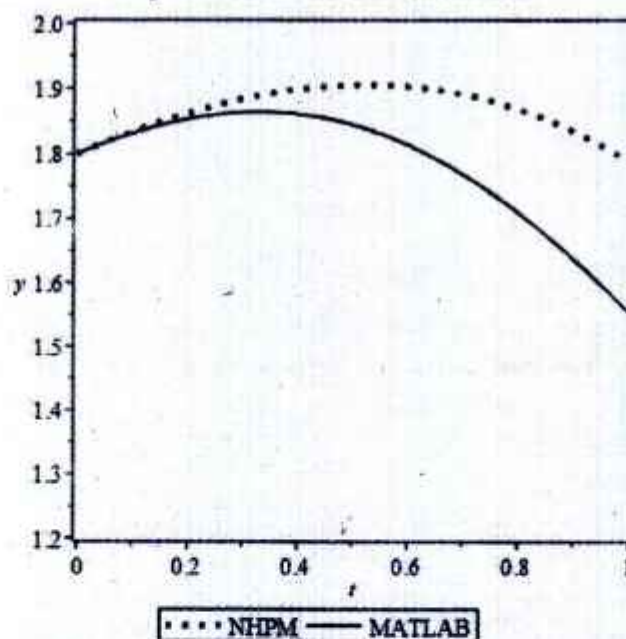


Fig 2. Plot of infected prey population versus time for $a=1.5$, $b=0.3$, $f=0.65$, $d=0.2$, $h_1=0.5$, $h_2=0.5$, $x_0=2$, $y_0=1.8$, $z_0=1$, $K=8$. The dotted lines represent the analytical solution and solid lines represent the numerical simulation.



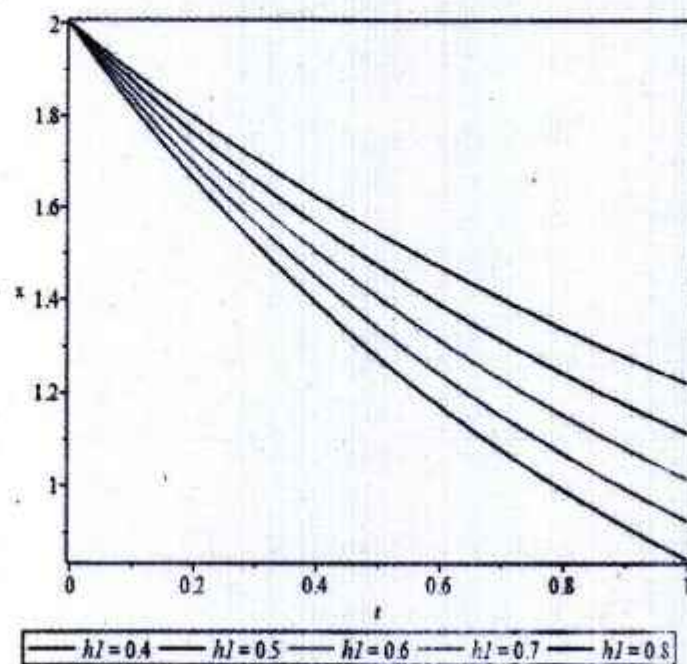


Fig 5. Plot of susceptible prey population versus time for $a=1.5$, $b=0.3$, $f=0.65$, $d=0.2$, $h_2=0.5$, $x_0=2$, $y_0=1.8$, $z_0=1$, $K=8$ and various values of h_1 .

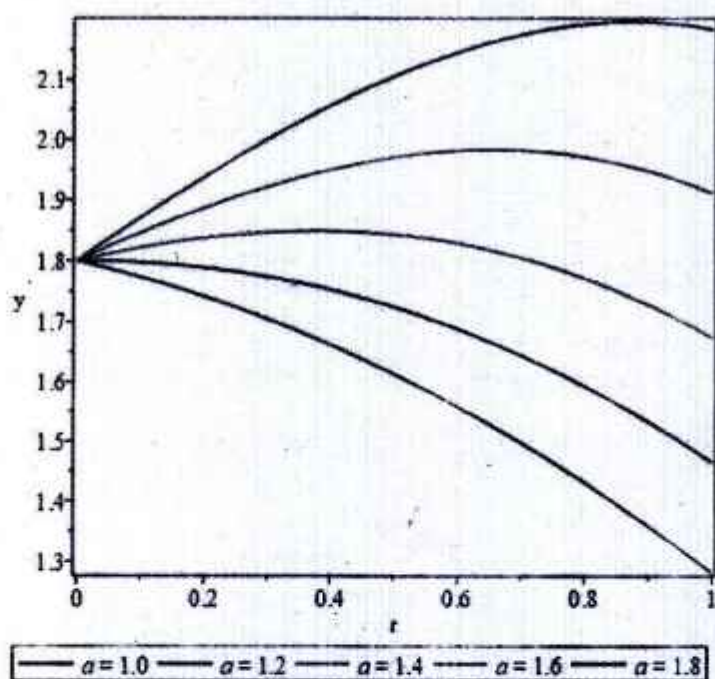


Fig 6. Plot of infected prey population versus time for $b=0.3$, $f=0.65$, $d=0.2$, $h_1=0.5$, $h_2=0.5$, $x_0=2$, $y_0=1.8$, $z_0=1$, $K=8$ and various values of a .

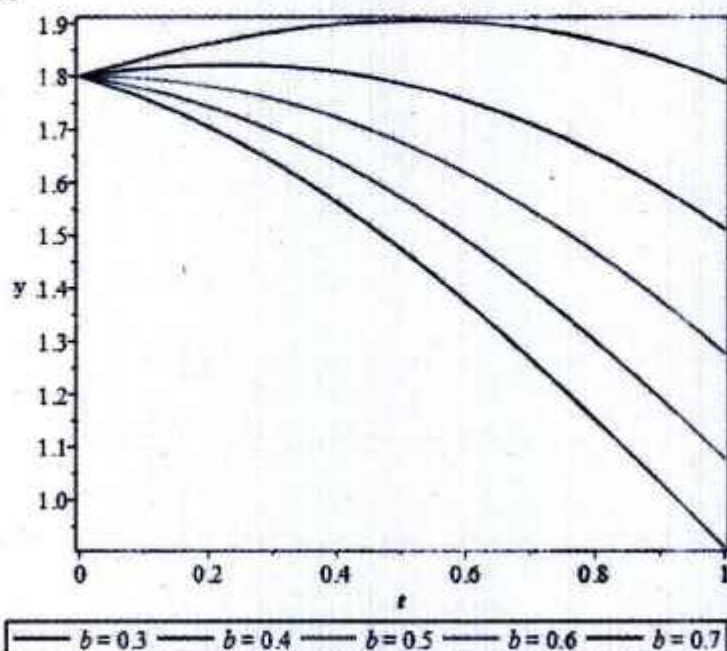


Fig 7. Plot of infected prey population versus time for $a=1.5$, $f=0.65$, $d=0.2$, $h_1=0.5$, $h_2=0.5$, $x_0=2$, $y_0=1.8$, $z_0=1$, $K=8$ and various values of b .

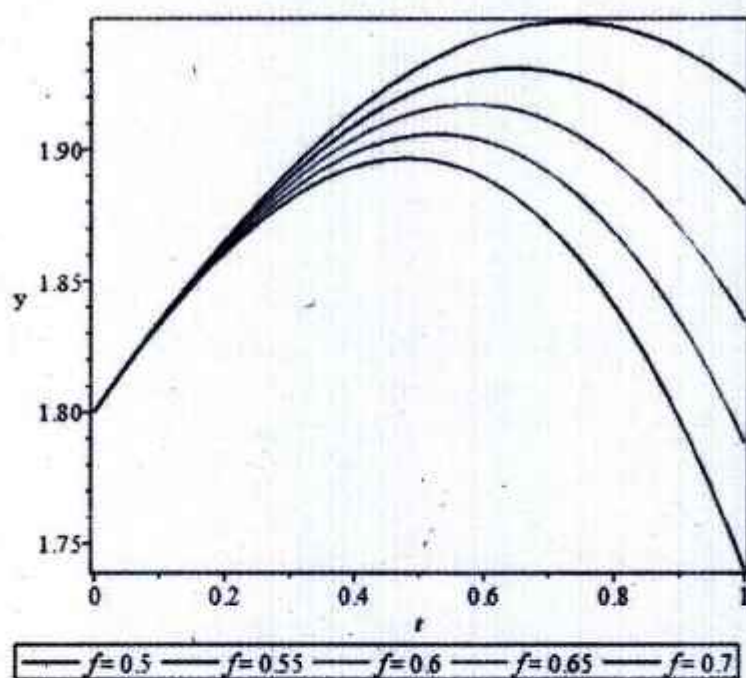


Fig 8. Plot of infected prey population versus time for $a=1.5$, $b=0.3$, $d=0.2$, $h_1=0.5$, $h_2=0.5$, $x_0=2$, $y_0=1.8$, $z_0=1$, $K=8$ and various values of f .



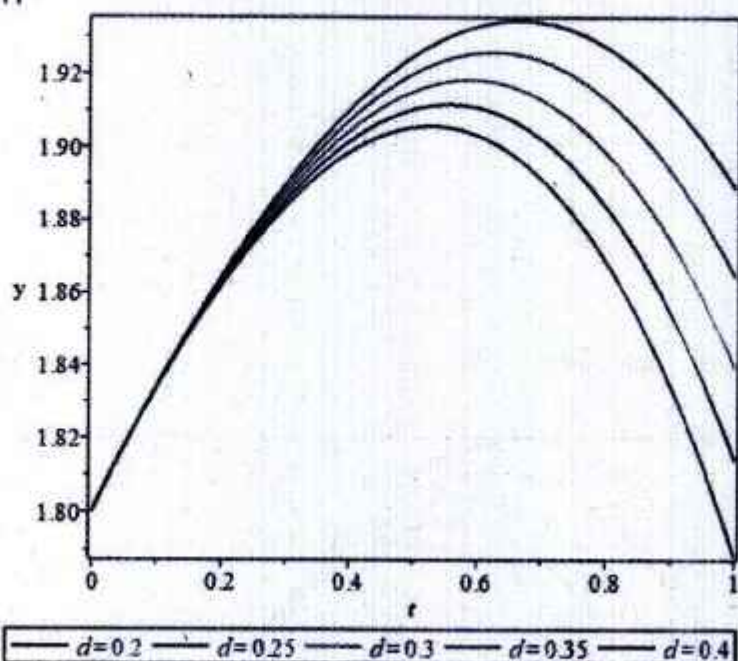


Fig 9. Plot of infected prey population versus time for $a=1.5$, $b=0.3$, $f=0.65$, $h_1=0.5$, $h_2=0.5$, $x_0=2$, $y_0=1.8$, $z_0=1$, $K=8$ and various values of d .

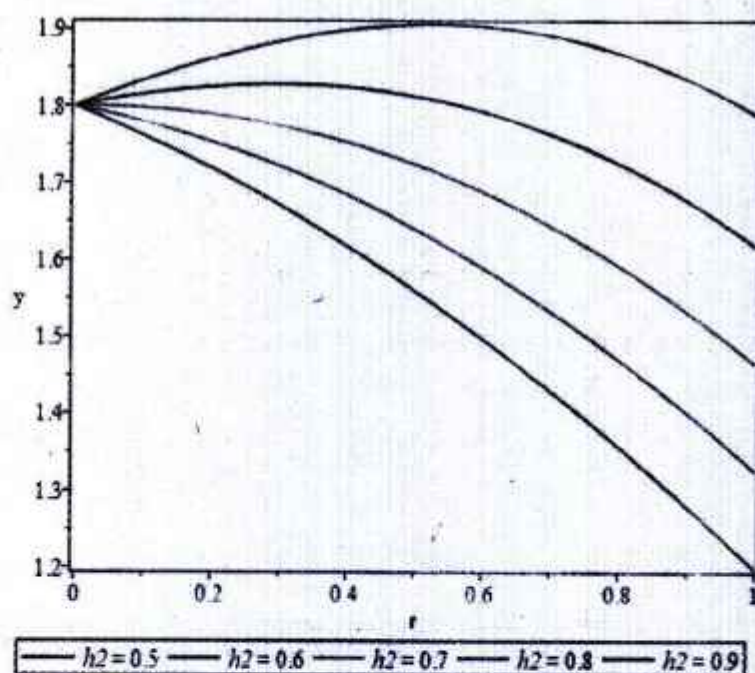


Fig 10. Plot of infected prey population versus time for $a=1.5$, $b=0.3$, $f=0.65$, $d=0.2$, $h_1=0.5$, $h_2=0.5$, $x_0=2$, $y_0=1.8$, $z_0=1$, $K=8$ and various values of h_2 .

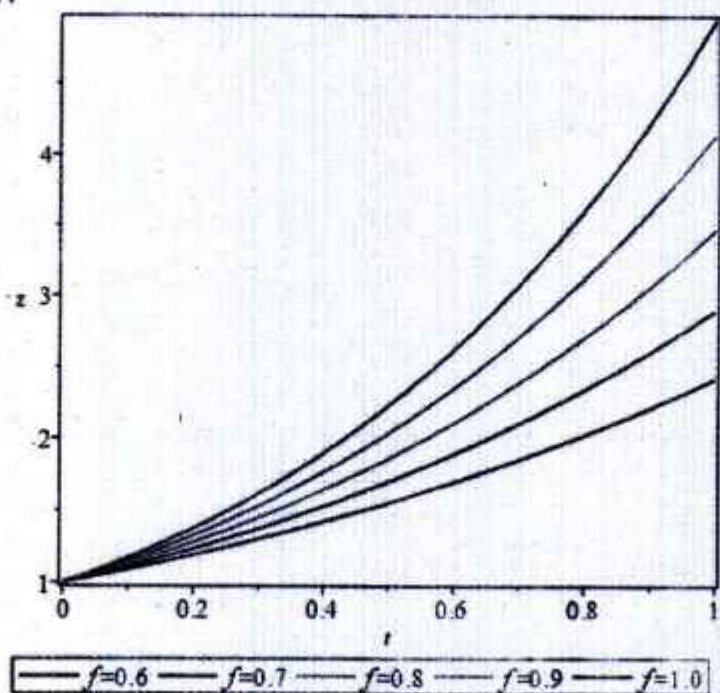


Fig 11. Plot of predator population versus time for $a=1.5$, $b=0.3$, $d=0.2$, $h_1=0.5$, $h_2=0.5$, $x_0=2$, $y_0=1.8$, $z_0=1$, $K=8$ and various values of f .

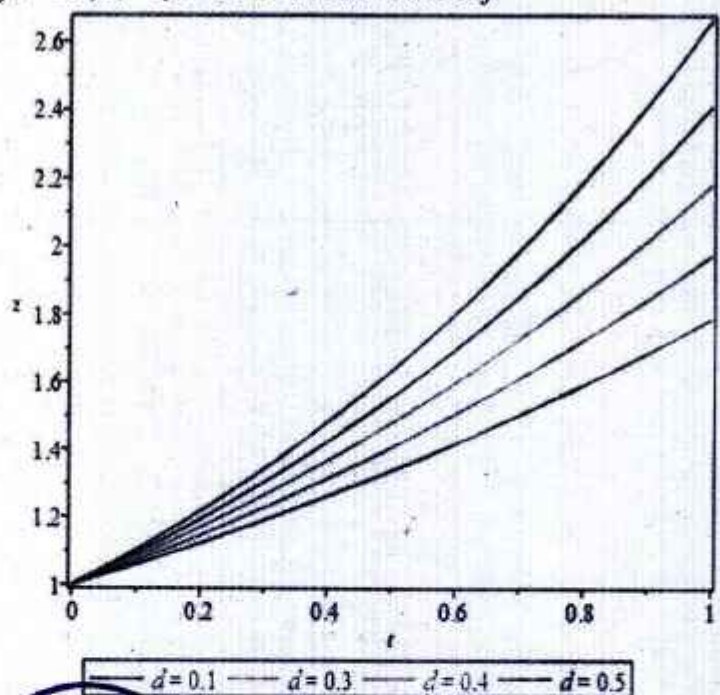


Fig 12. Plot of predator population versus time for $a=1.5$, $b=0.3$, $f=0.65$, $h_1=0.5$, $h_2=0.5$, $x_0=2$, $y_0=1.8$, $z_0=1$, $K=8$ and various values of d .

4. Results and discussions

Equations (10) to (12) give analytical expressions for susceptible prey, infected prey, and predator populations respectively. It is clear from figs. 1 to 3 that the resulting analytical expressions and the numerical simulation correspond satisfactorily. Figs. 4 to 11 show how the various characteristics affect the populations. The susceptible prey population decreases with increase in rate of transmission from the susceptible to infected prey population and constant harvesting rate of susceptible prey. The searching efficiency of the predator, conversion-efficiency rate of the predator, and constant harvesting rate of infected prey have a negative impact on infected prey population; while rate of transmission from the susceptible to infected prey population and death rate of predators have positive impact on the infected prey population. The predator population varies directly with conversion-efficiency rate of the predator, but inversely with death rate of predators.

5. Conclusion

For the populations of susceptible prey, infected prey, and predator, approximations of analytical expressions are presented in this study. The new homotopy perturbation method is employed to find the answer. The researchers' ability to assess the impact of various parameters on populations will be aided by the analytical results that were presented.

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Reem Khamis
Amina Buallay *Editors*

AI in Business: Opportunities and Limitations

Volume 2




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Editors

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**AI, Financing, Digital Literacy, Smart
Farming, Cybersecurity, and Green
Technology**



Awareness Among College Students on Government Schemes for Entrepreneurship Development in Bangalore



C. Dhanapal[✉], J. Chandrakhanthan[✉], R. Karthika[✉],
and Alex Louis Thannippara[✉]

1 Introduction

Entrepreneurship development is a critical component of economic growth and poverty alleviation in India. Despite the Government of India's strategic measures to address these issues, India is still considered an industrially backward nation. In this context, it is imperative to raise awareness about government schemes for entrepreneurship development among college students who represent a key segment of the country's future workforce and entrepreneurs. College students are known to be an important source of new ideas, innovations, and entrepreneurial ventures, and therefore, it is essential that they are aware of the available government schemes and are equipped to utilize them effectively.

Bangalore is one of the key cities in India that has witnessed significant growth in the technology and Startup sectors in recent years. However, the benefits of this growth have not been uniformly distributed, and poverty and unemployment remain significant challenges. The government has launched several schemes to address these issues, including Startup India, Pradhan Mantri Mudra Yojana, Stand-Up

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India, Atal Innovation Mission, and others. These schemes aim to provide financial and other forms of support to aspiring entrepreneurs, particularly those from underprivileged backgrounds, to establish and grow their businesses.

This study aims to assess the awareness of college students in Bangalore about the government schemes for entrepreneurship development and their utilization of these schemes. The study also seeks to identify the sources of awareness and the factors that affect the awareness and utilization of these schemes. The findings of this study could provide useful insights into the effectiveness of the government's schemes and inform policy decisions to enhance the impact of these schemes.

1.1 Government Schemes to Develop the Entrepreneurship in Bangalore

1.1.1 Startup Karnataka

This scheme is aimed at creating an ecosystem that supports and nurtures startups in Karnataka. It provides funding, mentoring, networking opportunities, and access to incubation centers and accelerators.

1.1.2 Karnataka State Finance Corporation (KSFC)

This scheme offers financial assistance to entrepreneurs for setting up new businesses, expanding existing ones, and for modernizing and upgrading machinery and equipment.

1.1.3 Karnataka State Small Industries Development Corporation (KSSIDC)

This scheme provides various services to entrepreneurs such as project identification, market survey, techno-economic feasibility study, project reports, and finance and subsidy assistance.

1.1.4 Pradhan Mantri Mudra Yojana (PMMY)

This scheme provides loans of up to Rs. 10 lakh to micro and small entrepreneurs. The loans are provided through various financial institutions such as banks, NBFCs, and MFIs.



1.1.5 Standup India

This scheme aims to promote entrepreneurship among women and SC/ST entrepreneurs. It provides bank loans between Rs. 10 lakh and Rs. 1 crore for setting up Greenfield enterprises in manufacturing, services, or trading sectors.

1.1.6 Atal Innovation Mission (AIM)

This scheme is aimed at promoting innovation and entrepreneurship among students, researchers, and startups. It provides funding, mentoring, and access to incubation centers and accelerators.

1.1.7 Karnataka Industrial Areas Development Board (KIADB)

This scheme provides infrastructure support and incentives for setting up industries in the state of Karnataka, including Bangalore.

1.1.8 Karnataka Entrepreneurship Development and Innovation Institute (KEDI)

This scheme provides training, mentorship, and networking opportunities to entrepreneurs in Karnataka to help them start and grow their businesses.

1.1.9 Pradhan Mantri Employment Generation Programme (PMEGP)

This scheme provides financial assistance for the establishment of micro-enterprises in the manufacturing and service sectors.

1.2 Objectives

- To identify the awareness on Government Schemes among college students for the start-ups.
- To know the different Government Schemes for the development of new entrepreneurs among college students.
- To identify the methods and strategies to provide more awareness to the college students.
- To suggest measures to improve entrepreneurship development programme through institutional support in.



2 Review of Literature

Entrepreneurship has been recognized as a critical driver of economic growth, job creation, and innovation. The Government of India has implemented various schemes and programs to promote entrepreneurship among the youth, including college students. However, the effectiveness of these schemes is often limited by the lack of awareness among the target audience.

In another study by Kothari and Kothari [1] on "Impact of Entrepreneurship Development Programs on College Students in Bangalore", it was found that entrepreneurship development programs have a positive impact on the overall entrepreneurial mind set and intentions of college students. However, the study also revealed that the lack of awareness and limited accessibility to these programs is a major challenge for interested students.

A study conducted by Raghavendra and Devi [2] on "Entrepreneurship Awareness among Students in Bangalore" revealed that although there is a high level of awareness about entrepreneurship among college students, there is still a lack of understanding about the practical aspects of starting and running a business. The study recommends that educational institutions should incorporate practical training and mentorship programs to bridge this gap.

A study conducted by Arora et al. [3] on "Awareness and Perception of Government Schemes for Entrepreneurship among Youth in India" revealed that although there is a high level of awareness among college students about the various government schemes for entrepreneurship, the level of participation is low. The study highlights the need for targeted communication and outreach efforts to increase participation and awareness among college students.

A study by Kumar and Bhuvaneswari [4] on "Impact of Government Schemes on Entrepreneurial Development among College Students in Bangalore" found that although there is a positive impact of government schemes on entrepreneurial development among college students, lack of awareness is a major barrier to participation. The study recommends that the government and educational institutions should collaborate to increase awareness about these schemes and provide necessary support to interested students.

Kumar and Mehta [5] aimed to examine the impact of entrepreneurship development programs on the entrepreneurial intentions of college students in Bangalore. The study found that such programs can have a significant positive impact on the entrepreneurial intentions of college students. The authors suggest that the government should continue to invest in these programs and ensure that they are accessible to a wider audience.

Kishore et al. [6] examined the effectiveness of the National Entrepreneurship Awards (NEA) in promoting entrepreneurship among college students in Bangalore. The study found that the NEA has had a positive impact on the entrepreneurial intentions of college students. However, the authors also note that the awareness of the NEA among college students needs to be improved to enhance its effectiveness.



A study conducted by Rekha and Ranganath [7] aimed to assess the awareness of college students in Bangalore regarding government schemes for entrepreneurship development. The study found that despite the availability of various schemes and programs, the awareness among college students was limited. The authors suggest that the government needs to increase the visibility and accessibility of these schemes and programs to enhance their effectiveness.

Several studies have highlighted the low levels of awareness among college students about government schemes for entrepreneurship development in Bangalore. A study by Mohan et al. [8] found that only 25% of college students surveyed were aware of the government schemes for entrepreneurship development, while another study by Suryanarayana and Srinivasa [9] found that only 27% of students were aware of such schemes.

The lack of awareness about government schemes for entrepreneurship development can be attributed to several factors. One of the primary factors is the lack of information dissemination channels. According to a study by Jagadish and Ramanathan [10], college students tend to rely on social media, family, and friends for information on entrepreneurship, while official government channels are not a preferred source of information.

In addition to the lack of information dissemination channels, the complex application procedures and eligibility criteria for these schemes can also act as a barrier for college students. A study by Raghavendra et al. [11] found that many college students were deterred by the lengthy application procedures and the need for collateral or guarantors to access the government schemes.

Furthermore, the lack of entrepreneurship education and training programs in colleges and universities can also contribute to the low levels of awareness about government schemes for entrepreneurship development. A study by Yeshodhara and Suresh [12] found that only a few colleges in Bangalore offered entrepreneurship courses, and there was a need for more structured and comprehensive entrepreneurship education programs.

2.1 Systematic Review of Literature

"A Systematic Review of Government Schemes for Entrepreneurship Development among College Students in Developing Countries" by Sharma and Sharma [13]. This review examines the effectiveness of government schemes in promoting entrepreneurship among college students in developing countries, including India. The authors identify key factors that influence the success of such schemes, including access to information, mentorship, and financial support.

"Awareness and Utilization of Government Schemes for Entrepreneurship Development among College Students: A Systematic Review" by Singh and Tiwari [14]. This review focuses specifically on the awareness and utilization of government schemes for entrepreneurship development among college students in India. The



authors identify key challenges and opportunities for increasing awareness and participation in such schemes, including the need for targeted outreach programs and the development of user-friendly online platforms.

"A Systematic Literature Review of Entrepreneurship Education and Development in Indian Higher Education Institutions" by Kumar and Parida [15]. This review examines the state of entrepreneurship education and development in Indian higher education institutions, including the role of government schemes in promoting entrepreneurship among college students. The authors identify key gaps and opportunities for improving entrepreneurship education and development in India, including the need for greater collaboration between educational institutions and the government.

Kallany and Suresh [16], the study reveals that commerce students are more aware about the term entrepreneurship. The arts students are least aware about entrepreneurship compared to science and commerce students. The study also finds that the students having Entrepreneurial awareness are unaware about the legal proceedings for an entrepreneurship. Students also responded that they are unaware about Govt. schemes to promote entrepreneurship.

Overall, these systematic literature reviews highlight the importance of government schemes in promoting entrepreneurship among college students in India, as well as the need for targeted interventions to increase awareness and participation in such schemes.

In conclusion, the available literature suggests that while there are various government schemes and programs available to promote entrepreneurship among college students in Bangalore, the awareness among the target audience is limited. The studies recommend that the government needs to increase the visibility and accessibility of these schemes and programs to enhance their effectiveness. Additionally, entrepreneurship development programs and awards can have a positive impact on the entrepreneurial intentions of college students and should be continued and made more accessible.

2.2 Research Problem

Based on the literature review of "Awareness among College Students on Government Schemes for Entrepreneurship Development in Bangalore," a potential research gap could be the lack of studies that specifically focus on the factors that influence college students' awareness and participation in government schemes for entrepreneurship development in Bangalore.

While some studies may have explored general factors that influence entrepreneurship among students, there may not be enough research that addresses the specific context of Bangalore and the government schemes available to students. Additionally, there may be a lack of studies that examine the effectiveness of government schemes in promoting entrepreneurship among college students in Bangalore.



Another potential research gap could be the limited representation of diverse groups of college students in the existing literature. Most studies may have focused on specific educational institutions or student groups, which may not be representative of the entire college student population in Bangalore. Therefore, there may be a need for studies that include a more diverse sample of college students to better understand the factors that influence their awareness and participation in government schemes for entrepreneurship development.

Overall, more research is needed to understand the factors that influence college students' awareness and participation in government schemes for entrepreneurship development in Bangalore, as well as to assess the effectiveness of these schemes in promoting entrepreneurship among college students. Additionally, studies that include a more diverse sample of college students would provide more insights into the factors that influence entrepreneurship among students from different backgrounds.

2.3 Methodology of the Study

The present study is an empirical as well as descriptive in nature. It is based upon the methods of survey research and the data which are collected both from primary and secondary sources. Data are mostly representative in nature. In order to make the study more relevant, it has been purposively decided that the study would be carried out on College student's (men and women) whoever studying final year in Bangalore colleges.

2.3.1 Research Design

The research design would be a quantitative study that involves collecting data through a survey. The survey would be designed to gather information on college students' awareness and participation in government schemes for entrepreneurship development in Bangalore.

2.3.2 Sampling

The sampling frame would include college students from various educational institutions in Bangalore. The sample size would be determined using appropriate statistical methods to ensure adequate representation of the target population.



2.3.3 Data Analysis

The data collected from the survey would be analyzed using appropriate statistical methods, such as descriptive statistics, correlation analysis, and regression analysis. The analysis would be conducted to examine the level of awareness and participation among college students in government schemes for entrepreneurship development in Bangalore and to identify any factors that may influence their participation.

2.3.4 Research Question

What is the level of awareness among college students in Bangalore regarding government schemes for entrepreneurship development?

2.3.5 Data Collection

A survey was conducted among 300 college students in Bangalore, selected using a stratified random sampling technique. The survey questionnaire consisted of 10 questions related to government schemes for entrepreneurship development, such as "Have you heard of the Startup India Scheme?" and "Have you ever applied for a government loan for your startup?" The responses were collected and analyzed using statistical software.

3 Analysis and Interpretation

3.1 Demographics

The sample consisted of 55% male and 45% female students, with an average age of 21 years. The majority of the respondents were pursuing undergraduate degrees (80%), while the rest were pursuing postgraduate degrees.

3.2 Awareness of Government Schemes

Out of the 10 questions related to government schemes for entrepreneurship development, the percentage of students who were aware of each scheme was as follows:

Startup India Scheme: 72%

Pradhan Mantri Mudra Yojana: 62%



Stand-Up India Scheme: 45%
Atal Innovation Mission: 42%
Make in India: 38%
Pradhan Mantri Yuva Yojana: 33%
Digital India: 28%
Pradhan Mantri Kaushal Vikas Yojana: 25%
Pradhan Mantri Rojgar Protsahan Yojana: 18%
None of the Above: 5%

3.3 Utilization of Government Schemes

Among the students who were aware of the government schemes, the percentage who had utilized them was as follows:

Startup India Scheme: 28%
Pradhan Mantri Mudra Yojana: 15%
Stand-Up India Scheme: 10%
Atal Innovation Mission: 8%
Pradhan Mantri Yuva Yojana: 5%
Digital India: 3%
Pradhan Mantri Kaushal Vikas Yojana: 2%
Pradhan Mantri Rojgar Protsahan Yojana: 1%

3.4 Sources of Awareness

The most common sources of awareness for the government schemes were friends and family (62%), followed by social media (28%), government websites (7%), and college/university (3%).



3.5 Perceived Barriers to Accessing Government Schemes for Entrepreneurship Development

Lack of information was the most common barrier (60%), followed by lack of guidance/mentorship (20%), lack of financial support (10%), and lack of trust in the government (10%).

3.6 Willingness to Participate in Government Schemes for Entrepreneurship Development

Among the respondents who were aware of government schemes, 65% expressed willingness to participate in them.

3.7 Factors Affecting Awareness and Utilization

A logistic regression analysis was conducted to identify the factors that affect the awareness and utilization of government schemes for entrepreneurship development. The analysis showed that gender, age, educational level, and family background were significant predictors of both awareness and utilization of the schemes.

3.8 Conclusion

The study found that the awareness of government schemes for entrepreneurship development among college students in Bangalore was moderate, with the Startup India Scheme being the most widely known. However, the utilization of these schemes was relatively low, with only a small percentage of students having applied for government loans or benefits. The study also identified friends and family as the primary source of awareness for these schemes, highlighting the need for targeted outreach programs and the development of user-friendly online platforms to increase awareness and utilization among college students.

4 Findings

The majority of college students in Bangalore are not aware of the government schemes available to them for entrepreneurship development.



The level of awareness of government schemes for entrepreneurship development is higher among students studying in business and management-related courses than students in other fields.

The main source of information for college students on government schemes for entrepreneurship development is the internet, followed by friends and family members.

Financial support and mentoring are the two most important factors that influence college students' decision to participate in government schemes for entrepreneurship development.

The effectiveness of government schemes in promoting entrepreneurship among college students in Bangalore is low, with a significant number of students reporting that they faced difficulties in accessing the schemes or did not receive the expected support.

There may be differences in awareness and participation in government schemes for entrepreneurship development among college students from different socio-economic backgrounds or educational institutions.

5 Suggestions

Increase Awareness: Efforts should be made to increase awareness among college students about the government schemes available for entrepreneurship development. This could be achieved through targeted outreach programs, collaborations with educational institutions, and the use of social media and other communication channels.

Improve Access to Information: The government should work on improving access to information about entrepreneurship development schemes for college students in Bangalore. This could be done through the development of user-friendly online platforms, the use of digital marketing strategies, and partnerships with educational institutions.

Provide Mentorship and Financial Support: To encourage college students to participate in entrepreneurship development schemes, the government should focus on providing mentorship and financial support. This could be achieved through the development of mentorship programs, the provision of grants and loans, and the establishment of incubation centres.

Promote Diversity and Inclusion: To ensure that all college students in Bangalore have equal opportunities to participate in entrepreneurship development schemes, the government should promote diversity and inclusion. This could be done through targeted outreach programs and the development of policies that promote equal access and opportunities for all.



6 Conclusions

The study on "Awareness among College Students on Government Schemes for Entrepreneurship Development in Bangalore" highlights the need for increased awareness and access to information about government schemes for entrepreneurship development among college students. The study suggests that financial support and mentorship are important factors that influence college students' participation in such schemes.

The study also highlights the need to promote diversity and inclusion in entrepreneurship development schemes to ensure that all college students in Bangalore have equal opportunities to participate. The findings of the study could be used to inform policies and strategies to increase awareness and participation in government schemes for entrepreneurship development among college students in Bangalore. Overall, the study underscores the importance of promoting entrepreneurship among college students as a means of promoting economic growth and development in Bangalore.

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