

SPARKLES

VOLUME VI

June 2025

Innovation and Impact in the 21st century



**Shrimathi Devkunvar Nanalal Bhatt
Vaishnav College for Women (Autonomous)**

Affiliated to University of Madras
Re-Accredited with 'A+' Grade by NAAC
Chromepet, Chennai - 600 044

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Foreword

“Somewhere, something incredible is waiting to be known”

-Carl Sagan

In the 21st century, innovation is not merely a catalyst for progress, but the very fabric of our evolving world. From the rapid expansion of digital technologies to the urgent need for sustainable practices, our era demands a reinvention of how we live, work, and relate to one another. As we navigate this century, the convergence of technology, society, and individual agency presents both challenges and opportunities. Emerging technologies such as artificial intelligence, biotechnology, and renewable energy are not only transforming industries but also redefining the possibilities of human achievement. Innovative methods are being developed to address environmental challenges. Innovative approaches are being developed to support and nurture the psychological well-being of youth. This collection of articles delves into the multifaceted nature of contemporary innovation, exploring its profound impact across various sectors. This compilation serves as a testament to the ingenuity and resilience that define our collective journey toward a more innovative and impactful future.

The 21st century stands as a testament to the boundless potential of human ingenuity. In our interconnected world, innovation transcends traditional boundaries, influencing every facet of our lives. From the evolution of business models to the intricacies of digital well-being, the challenges and opportunities we face are both complex and interconnected. Each article reflects a commitment to understanding and addressing the multifaceted issues of our time. The contributors have demonstrated critical thinking, research acumen, and a passion for making a meaningful impact.

Jai Hind

S/Lt Dr. K. Kanthimathi

Principal Incharge

Shrimathi Devkunvar Nanalal Bhatt
Vaishnav College for Women, Chromepet.

Preamble

SPARKLES Volume VI - Innovation and Impact in the 21st Century

Dear Readers,

Welcome to this VIth edition of Sparkles, the journal that illuminates the transformative ideas and achievements of our institution. As we navigate the complexities of the 21st century, the twin forces of innovation and impact stand at the core of our mission, driving us to redefine what is possible and create meaningful change in our communities and beyond.

The articles in this volume showcase the remarkable creativity of our students and researchers. Their work bridges tradition and modernity with empathy and insight. From exploring the cultural richness of Tamil heritage to analysing the economic and social scars of India.

Innovations in technology - explored through blockchain, e-commerce personalisation, and digital minimalism - highlight transformative solutions for commerce, mental health, and sustainability. Studies on influencer marketing, social media's role in consumer behaviour, and nutritional advancements in garden cress and jackfruit seeds demonstrate a forward-thinking approach to societal needs.

Each contribution is a testament to the curiosity, rigour, and vision of our researchers. Whether examining the future of retail, sustainable waste management, or the impact of student-teacher relationships, they offer thoughtful perspectives and actionable ideas. This diverse collection enriches our understanding and inspires new avenues for exploration and impact.

Here's to ignite knowledge and impact for the 21st century!

Let us continue to let our Sparkles shine brightly, illuminating the path to a better tomorrow!

Dr. M.S. Vijaya

Director

Shrimathi Devkunvar Nanalal Bhatt
Vaishnav College for Women, Chromepet.

From the Editorial Board

Shrimathi Devkunvar Nanalal Bhatt Vaishnav College for Women has carved a niche in women's education by upgrading its status as a Research Institute. We have always been ahead in promoting research initiatives. To promote a healthy research and writing culture, the college takes pride in publishing two International Half-yearly Journals – International Journal of Multi disciplinary Research in Arts, Science and Commerce (IJMRASC) and Svādhyāya - International Journal of Trans-disciplinary Research and Development (SIJTRD). SIJTRD promotes the concept of trans-disciplinary research by collaborating with natural sciences. IJMRASC encourages Innovative Research, Review of the existing research, Comparative research of different approaches and its interpretation, problem solving research, community based and social relevant research.

To encourage the art of writing research articles amongst UG, PG students and faculty members of our college, we have taken an initiative to publish a multi disciplinary research book SPARKLES – Innovation and Impact in the 21st Century which comprises conceptual articles, technology based research ideas, research findings, and investigative ideas. This is an opportunity for the students to build their technical writing skills and formulate research spirit.

This volume presents a vibrant tapestry of contemporary academic inquiries, reflecting diverse perspectives and interdisciplinary research. Contributions span across languages, commerce, technology, social sciences, and environmental studies, highlighting the dynamic engagement of students and scholars with pressing real-world issues.

From exploring traditional Tamil literature to the sociocultural implications of sexual violence in India, the volume underscores the enduring relevance of humanities. The intersection of technology with mental health, commerce, and education is a recurring theme, with studies examining digital minimalism, the future of e-commerce, and the role of technology in shaping banking systems.

Environmental concerns are addressed through insightful reviews on microplastic removal and sustainable waste management. The social sciences are well represented with empirical analyses on homelessness, human resource alignment with SDGs, and student-teacher relationships. Marketing trends such as influencer marketing, franchising, and social media's impact on consumer behavior also find a prominent place.

This compilation not only fosters academic excellence but also encourages critical thinking and socially responsible innovation. It stands as a testament to the institution's commitment to nurturing inquisitive minds and building a better-informed society.

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திருக்குற்றாலக் குறவஞ்சியில் குறவர் இன மக்களின் வாழ்வியல்

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ஆய்வுச் சுருக்கம்

தமிழிலக்கிய வகைமைகளின் ஒன்றான சிற்றிலக்கியங்கள் நாயக்கர் காலத்தில் அதிக அளவில் வெளிவரத் தொடங்கின. அவற்றுள், ஒன்று குறவஞ்சி இலக்கியமாகும். இதில் அனைவராலும் அறியப்பட்டது திரிகூட ராசப்பக் கவிராயரால் இயற்றப்பட்ட திருக்குற்றாலக் குறவஞ்சி ஆகும். இது குறவர்களின் வாழ்வியலை மிகத் தெளிவாக எடுத்தியம்புகிறது. இந்நூல் குற்றால மலையின் வளத்தையும் மக்களின் தொழில், அவர்களின் தோற்றப்பொலிவு, அன்றாட வாழ்க்கை முறை போன்றவற்றை மிகத் தெளிவாக படம் பிடித்துக் காட்டுகிறது. இதன் வாயிலாக அறியப்படும் குறவர் இன மக்களின் வாழ்வியலை இக்கட்டுரை எடுத்து இயம்புகிறது.

கலைச்சொற்கள்

திருக்குற்றாலக் குறவஞ்சி - குறவர் இனம் - வாழ்வியல் - சிற்றிலக்கியங்கள் - பிரபந்தம் - திரிகூட ராசப்பக் கவிராயர் - சமூகம் - குறவஞ்சி இலக்கியம் - குறவன் - குறத்தி - குறிகூறுதல் - பரிசு - நிமித்தங்கள் - தோற்றப்பொலிவு - குறவர் தொழில் - பிற திறன்கள் - காதல் வாழ்க்கை.

முன்னுரை

சங்க காலத்திற்குப் பின்னர் பல காப்பியங்களும் பக்தி இலக்கியங்களும் தோன்றி வளர தொடங்கின. அதனைத் தொடர்ந்து பல சிறிய அளவிலான இலக்கியங்கள் தோன்றின. அவை சிற்றிலக்கியங்கள் என்றும் பிரபந்தங்கள் என்றும் அழைக்கப்பட்டன. ஒவ்வொரு காலத்திலும் வெளிவரும் இலக்கியங்களைப் படைக்கும் படைப்பாளி தம்முடைய படைப்பின் வாயிலாகப் பல விழுமியங்களை எடுத்துரைக்கின்றனர்.

இவ்வகையில் வெளிவந்த சிற்றிலக்கியங்கள் அறம், பொருள், இன்பம், வீடு என்ற நான்கு உறுதிப்பொருட்களில் ஒன்றோ பலவோ வெளிப்படும் வகையில் அமைந்தது. இவ்வகைச் சிற்றிலக்கியங்கள் நாயக்கர் காலத்தில் அதிகம் வளரத் தொடங்கின. உலா, தூது, கலம்பகம், பிள்ளைத்தமிழ் என்ற வரிசையில் குறவஞ்சி இலக்கியமும் அதிக அளவில் பாடப்பட்டது. அவ்வகையில் அமைந்த குறவஞ்சி இலக்கியத்தில் தலைசிறந்ததாகக் கருதப்படும் திரிசூட ராசப்பக் கவிராயரால் இயற்றப்பட்ட திருக்குற்றாலக் குறவஞ்சியின் வாயிலாக வெளிப்படும் குறவர் இன மக்களின் வாழ்வியலை ஆராய்வதாக இக்கட்டுரை அமைகிறது.

சிற்றிலக்கியங்கள்

பிரபந்தம் என்ற வடமொழிச் சொல்லின் திரிபே சிற்றிலக்கியம் என்பதாகும். இந்த சிற்றிலக்கியங்கள் 96 வகைப்படும். ஆனால் 'பிரபந்தம் என்பது நூல் என்னும் பொருள் தரும் ஒரு வடசொல். நன்றாகக் கட்டப்பட்டது என்பது இதன் பொருள். தமிழில் வழங்கும் யாப்பு, செய்யுள் என்பனவும் இக்கராணங்களைப் பற்றிப் பிறந்த பெயர்களேயாகும். தமிழில் நூல் என்பது எல்லா வகை நூல்களையும் சுட்டும் பெயராக இன்று வழங்கி வருகிறது. ஆனால் பண்டைய நாளில் இலக்கண நூல்களைச் சுட்டுவதற்கே இச்சொல் பயன்படுத்தப்பட்டது¹. வடிவத்தில் சிறியதாக அமைந்தாலும் பல நல்ல கருத்துக்களை மக்களிடம் கொண்டு சேர்க்கும் முறையில் சிற்றிலக்கியங்கள் அமைந்துள்ளன. ஒவ்வொரு சிற்றிலக்கியமும் அந்தந்த சமூகத்தைப் பிரதிபலிப்பதாகவும் விளங்குகிறது. அவ்வகையில் குற்றால மலையில் வாழும் குறவர் இனமக்களின் சமூகத்தைப் படம் பிடிக்கும் வகையில் அமைந்தது திருக்குற்றாலக் குறவஞ்சி இலக்கியம் ஆகும்.

இலக்கியங்களில் குறவஞ்சி

காலத்தால் மூத்த இலக்கண நூலான தொல்காப்பியத்தில் வேலன் வெறியாடல் கழங்கு குறித்த செய்திகள் இடம் பெற்றுள்ளது.

“கட்டினும் கழங்கினும் வெறி என இருவரும்
ஒட்டிய திறத்தால் செய்திக் கண்ணும்”. 2

என்ற வரிகள் குறவர் இன மக்களை முன்னிறுத்துவதாக அமைந்துள்ளதனைக் காணமுடிகிறது.

சங்க இலக்கியமாகிய குறுந்தொகையில் ஒளவையார்,

“அகவன் மகளே அகவன் மகளே
மனவுக்கோப் பன்ன நன்னெடுங் கூந்தல்
அகவன் மகளே பாடுக பாட்டே
இன்னும் பாடுக பாட்டே அவர்
நன்னெடுங் குன்றம் பாடிய பாட்டே”. 3

என்று பாடுகிறார். அகவன் மகளே என்று ஒளவை குறத்தியைக் குறிப்பிடுகிறாள். இவ்வாறு குறத்தி பற்றிய பல செய்திகள் சங்க இலக்கியங்களில் இடம்பெறுவதிலிருந்து காலத்தில் மூத்த சமூகமாக குறவர் இன மக்கள் திகழ்ந்ததை உணர முடிகிறது.

குறவஞ்சி இலக்கணம்

சிறுநிலக்கிய வகையில் குறிப்பிடத்தக்க ஒன்றாகத் திகழும் குறவஞ்சி இலக்கியம் தனக்கென ஓர் இலக்கணத்தைக் கொண்டுள்ளது. பாட்டுடைத் தலைவன் உலாவரக் கண்ட தலைவி அவனைத்தன் காதலனாக நினைக்கிறாள். தன்னை மறந்த நிலையில் உள்ள அத்தலைவிக்குக் குறத்தி குறிக்கூறி (நற்சொல்) பரிசில் பெறும் செய்திகளைக் கூறுதல் குறவஞ்சியின் இலக்கணமாகும். இது குறத்திப்பாட்டு என்றும் அழைக்கப்படுகிறது. குறவஞ்சி என்பது 'குற + வஞ்சி' என்ற இரு சொற்கள் இணைந்து வருவது. இது குறவர் குல வஞ்சி போன்ற பெண் என்று பொருள் தரும். இக்குறவஞ்சி நூல்கள் பாட்டுடைத் தலைவனின் ஊர்ப் பெயராலும் (குற்றாலக் குறவஞ்சி) தலைவரின் பெயராலும் (தியாசேகர் குறவஞ்சி) இலக்கியத்தில் இடம் பெறும் பாட்டுடைத் தலைவன் பெயராலும் (தஞ்சை வெள்ளைப் பிள்ளையார் குறவஞ்சி) தலைவி பெயராலும் (தமிழரசி குறவஞ்சி) குறத்தி பெயராலும் (துரோபதி குறவஞ்சி) எனப் பலவாறுக் காண முடிகிறது.

குறவர்கள்

ஐந்திணைகளில் ஒன்றான குறிஞ்சி நிலத்தில் வாழ்பவர்கள் குறவர்கள் ஆவர். ஆண்மகன் குறவன் என்றும், பெண்மகள் குறத்தி என்றும் அழைக்கப்பட்டனர். ஆண்கள் வேட்டையாடுதலையும், பெண்கள் குறி சொல்லுதலையும் தொழிலாகக் கொண்டிருந்தனர். இவர்கள் தங்களது சமூகத்தில் பல கட்டுப்பாடுகளையும், சட்டத் திட்டங்களையும் வகுத்து அதன் வழி வாழ்ந்துள்ளனர். இதனைக் குற்றாலக் குறவஞ்சியில் இடம்பெறும் பாடல்கள் வாயிலாக அறிய முடிகின்றது. குறவர்கள் தங்களது குலம் தவிர வேறு குலத்தில் பெண் கொடுக்கவும் கொள்ளவும் மாட்டார்கள். மேலும் ஒரு முறை நட்பு கொண்டால் அதனை எக்காரணம் கொண்டும் அவர்கள் கைவிடமாட்டார்கள் என்பதனை,

“ஒருகுலத்தில் பெண்கள் கொடோம் ஒருகுலத்திற் கொள்ளோம்
உறவுபிடித் தாலும்விடோம் குறவர்குலம் நாங்கள்”. 4

என்ற பாடல் வரியால் அறிய முடிகின்றது. இத்தகைய விழுமியத்தைத் தங்கள் வாழ்வில் மிகப் பெருமையுடன் கடைப்பிடித்து வந்ததனைப் பார்க்க முடிகிறது.

குறத்தியின் தோற்றப் பொலிவு

குறத்தியர் தனது நெற்றியிலே திருநீறும், கஸ்தூரிப் பொட்டும் வைத்து, கூந்தலில் வெட்சிப் பூவைச் சூடி, கண்களில் மை தீட்டி, வளையல்கள் அணிந்து தம் கைகளிலே மந்திரக்கோலை ஏந்திக் கொண்டு, இடையில் கூடையுடன், மார்பில் குன்றிமணி, பாசிமணி போன்ற மாலைகளை அணிந்து கொண்டும், காதுகளில் காதணிகளையும், காலில் சிலம்பும் அணியும் பழக்கமுடையவர்களாகத் திகழ்ந்தனர், என்பதனை

“குலமணிப் பாசியும் குன்றியும் புனைந்து
சலவைசேர் மருங்கிற் சாத்திய கூடையும்
வலதுகைப் பிடித்த மாத்திரைக் கோலும்
மொழிக்கொரு பசப்பும் முலைக்கொரு குலுக்கும்
விழிக்கொரு சிமிட்டும் வெளிக்கொரு பகட்டுமாய்”. 5

என்பதன் மூலம் இதனை அறிய முடிகிறது. குற்றாலக் குறவஞ்சியின் வாயிலாக அறியப்படும் இத்தகைய தோற்றப்பொலிவிலேயே இன்றளவும் குறவர்கள் காட்சியளிப்பது இங்கு நினைவு கூரத் தக்கதாகும்.

குறத்தியர் தொழில்

குறவர் குலப் பெண்கள் குறிசொல்லும் தொழிலை நன்கு அறிந்தவர்கள். அவர்கள் குறி சொல்வதற்காக பல ஊர்கள் பல நாடுகள் தனியாக சென்று பல பாராட்டுகளையும், பரிசுகளையும் பெற்று திரும்புவார்கள். இவர்கள் பல மொழிகளை நன்கு அறிந்தவர்கள். வஞ்சிநாடு, கொச்சி நாடு, கொங்கு நாடு, மக்கம், மராடம், துலுக்காணம் முதலிய நாடுகளுக்குச் சென்று குறி சொல்லி வந்துள்ளனர். செஞ்சி, வடகாசி, பரந்த சீன நாடு, சிங்களம், ஈழம், கொழும்பு, வங்காளம், தஞ்சை, திருச்சி ராப்பள்ளிக்கோட்டை, மதுரை, தென்மங்கலப் பேட்டை இடங்களிலும் குறி சொல்லிப் புகழ்பெற்றிருந்தனர் என்பதனை,

“வஞ்சி மலைநாடு கொச்சி கொங்கு
மக்கம் மராடந் துலக்காணம் மெச்சி
செஞ்சி வடகாசி நீளம் சீனம்
சிங்கம் ஈழம் கொழும்புவங் காளம்
தஞ்சை சிராப்பள்ளிக் கோட்டை தமிழ்ச்
சங்க மதுரைதென் மங்கலப் பேட்டை
மிஞ்சு குறிசொல்லிப் பேராய்த் திசை
வென்று நான்பெற்ற விருதுகள் பாராய்”. 6

இப்பாடல் அடிகளால் அறியமுடிகிறது. மேலும், குறத்தியர் குறிச் சொல்லும் பொழுது ஆண்களுக்கு வலது கையும், பெண்களுக்கு இடது கையும் பார்த்துக் குறி சொல்வர். அவர்கள் முக்காலத்தையும் தங்கள் குறியின் மூலம் கணிக்கும் ஆற்றல் கொண்டவர்கள். மனக்குறி, உடற்குறி, கைக்குறி, சொற்குறி போன்ற பலவகையான குறிகளையும் சொல்வதில் வல்லவர்களாகவும் திகழ்ந்தனர். இதனை,

“மன்னவர் தமக்கு வலதுகை நோக்கி
இன்னகை மடவார்க்கு இடதுகை பார்த்துக்
காலமுன் போங்குறி கைப்பல னாங்குறி
மேல்இனி வருங்குறி வேண்டுவோர் மனக்குறி
மெய்க்குறி கைக்குறி வழிக்குறி மொழிக்குறி”. 7

என்று பல வகையாகக் குறத்தி குறிக் கூறுவதனை இங்குப் பார்க்க முடிகின்றது. இத்தகைய குறி கூறும் தம் தொழிலைச் சிறப்புடன் செய்தனர். முதலில் குறத்தி கடவுளை வழிபட்ட பின்னர் தான் குறி சொல்லத் தொடங்குவர். குறி சொல்லத் தொடங்கும் போது நற்குறி, தீக்குறி பார்ப்பார்கள். நற்குறி தோன்றினால் மட்டுமே குறி சொல்வார்கள். பெதும்பை பெண் பேச்சும், மேற்குத் திசையில் ஆந்தையின் கீச்சுக் குரலும், தும்மல் ஒலியும், காக்கை இடது பக்கம் பறந்து போதலும், பல்லியின் ஓசையும் நற்குறியின் அடையாளங்களாகத் திகழ்கின்றன என்பதனை,

“விம்முமுலைக் கன்னிசொன்ன பேச்சு நன்றம்மே-நேரே
மேற்புறத்தில் ஆந்தையிட்ட வீச்சுநன்றம்மே
தும்மலுங்கா கமுமிடம் சொல்லுதே அம்மே - சரம்
சூட்சமாகப் பூரணத்தை வெல்லுதே அம்மே”. 8

என்ற பாடல் வழி அறிய முடிகிறது.

குறத்தியர் பெற்ற பல பரிசுகள்

குறத்தியர் சிறப்பாகக் குறி சொல்லி முடித்த பின்னர் பலவிதமானப் பரிசுகளைப் பெற்றனர். குறத்தியர் மக்களுக்கு நற்குறிக் கூறும் பொழுது அவர்கள் மகிழ்ந்து முத்திரை மோதிரமும், பொன் வளையலும், பொற் கரணமும், பொன் நெளியும், கடகக் காப்பும், பொன் மாலையும், மாணிக்க மாலையுளும் குறிக் கூறியதற்குப் பரிசாக வழங்கினர். இத்தகைய பரிசுப் பொருட்களைப் பெறும் குறத்தியர் பெரும் மகிழ்வுடன் தத்தம் இருப்பிடம் திரும்புவதனையும் அறிய முடிகிறது. ஒவ்வொரு நாட்டினரும் பலவிதமான பரிசுகளை வழங்கினர். அதில் சேர நாட்டிலிருந்து சிலம்பும், கலிங்க நாட்டிலிருந்து முறுக்குத் தண்டையும், பாண்டிய நாட்டிலிருந்து பாடகமும், திருநெல்வேலியிலிருந்து சல்லாத்துணியும், சோழநாட்டிலிருந்து அரைஞாண்கொடியும், காயல்பட்டினத்திலிருந்து முத்துமணி மாலையும், குட்டநாட்டு காயங்குளத்திலிருந்து கழுத்துச் சரடும், மங்கள தேசத்திலிருந்து கொப்பணியும், புன்னை காயிலிருந்து முத்துச்சரடும், ஆழ்வார் திருநகரியிலிருந்து சூளாமணியும் பரிசுகளாகப் பெற்றனர் என்பதனைக் குறவஞ்சி இலக்கியம் வாயிலாக அறிய முடிகிறது.

குறவரின் தோற்றம்

குறத்தியின் தோற்றப் பொலிவினைப் போன்று குறவர்களும் ஒரு குறிப்பிட்ட அலங்காரம் கொண்டிருந்தனர். அவர்கள் மக்காவின் மணி போன்ற ஆரத்தை அணிந்தும், தலையில் கொக்கினுடைய இறகுகளைச் சூடிக்கொண்டும், புலியின் தோலை இடுப்பிலே கட்டிக் கொண்டும், கையில் பல ஆயுதங்களை எடுத்துக் கொண்டும், பறவைகளைப் பிடிக்கும் வலையைத் தோளில் போட்டுக் கொண்டும், மிகச்சிறந்த மனவலிமையுடனும், ஆற்றலுடனும் குறவர்கள் காட்சியளித்தனர். இதனை

“வக்காவின் மணிபூண்டு கொக்கிறகு
 சிகைமுடித்து வரித்தோற் கச்சைத்
 தொக்காக வரிந்துறுக்கித் தொடர்புலியைக்
 கண்டுறுக்கித் தூணி தூக்கிக்
 கைக்கான ஆயுதங்கள் கொண்டுசில்லிக்
 கோலெடுத்துக் கண்ணி சேர்த்துத்
 திக்கடங்காக் குளுவசிங்கள் குற்றாலத்
 திரிகூடச் சிங்கள் வந்தான்”. 9

என்ற பாடல் மூலம் அறிய முடிகிறது.

குறவரின் தொழில்

குறவர்கள் வேட்டையாடுதலைத் தம் குலத் தொழிலாகக் கொண்டிருந்தனர். அவர்கள் விளைநிலங்களிலும் நீர்நிலைகளிலும் கண்ணிகள் வைத்து பறவைகளைப் பிடித்தனர். சில நேரங்களில் இவர்கள் நாய் போல தடங்கள் பார்த்தும், பூனை போல் பதுங்கியும், நரி போல ஒடுங்கியும், பேய் போல் பின்தொடர்ந்தும், சிங்கம் போல பாய்ந்தும் பறவைகளை வேட்டையாடிப் பிடித்தனர். இதனை,

“ஞானிபோல் சுவடெடுத்துப் பூனைபோல்
 ஒளிபோட்டு நரிபோல் பம்மிக்
 கூளிபோல் தொடர்ந்தடிக்கும் திரிகூடச்
 சிங்கனெனும் குளுவன் நானே”. 10

என்பதனால் அறியலாம். மேலும் வேட்டையின்போது குறவன் பறவைகளை அழைக்க அப்பறவைகள் போன்றே ஒலி எழுப்பினர். சில நேரங்களில் மரத்தின் மேல் ஏறிப் பறவைகளைக் கண்காணித்தனர் என்பதனையும் அறிய முடிகிறது.

தெய்வங்களின் வேட்டைச் சிறப்புகள்

குறவர் இன மக்கள் தங்களின் வேட்டையாடுதல் தொழிலைப் பெரிதும் மதித்த பொழுது அக்காலத்தில் இத்தொழிலானது சிறுமைப்படுத்தப்பட்டது. எனவே தங்கள் தொழிலைச் சிறப்புடன் உயர்த்தக் கருதிய குறவர்கள் தெய்வங்களும் இவ்வேட்டையாடுதல் தொழிலை மேற்கொண்டிருந்தன என்பதனைச் சான்றாகக் குறிப்பிட்டுப் பாடுகின்றனர்.

விநாயகர் பெருச்சாளியைப் பிடித்தார், அவரது தம்பியான முருகன் மயிலைப் பிடித்து வாகனமாக மாற்றிக் கொண்டார், சிவன் பிரம்மனுக்கு அன்ன பறவையை வாகனமாகப் பிடித்துக் கொடுத்தார், திருமால் செம்பருந்தைப் பிடித்துக்கொண்டு சென்றார். இவ்வாறு தெய்வங்களே பறவைகளைப் பிடித்துத் தங்களின் வாகனங்களாக மாற்றியதால் நாம் வேட்டையாடுவது தவறல்ல என்கின்ற குறவர்களின் கருத்தினை,

“முன்னாட் படுத்த பழம்பெருச் சாளியை
 மூத்த நயினார் மொடுவாய்க் கொடுபோனார்
 பின்னான தம்பியார் ஆடும் மயிலையும்
 பிள்ளைக்குறும்பாற் பிடித்துக்கொண் டேகினார்
 பன்னரும் அன்னத்தை நன்னக ரீசர்
 பரிகலம் ஈந்திடும் பார்ப்பானுக் கீந்தனர்
 வன்னப் பருந்தொரு கள்வன் கொடுபோனான்
 வக்காவும் நாரையும் கொக்கும் படுக்கவே”. 11

என்ற பாடல் அடிகளின் மூலம் நாம் அறிய முடிகிறது.

குறவரின் பிற திறன்கள்

குறவர்கள் வேட்டையாடுதலில் மட்டுமல்லாமல் அவர்களிடம் பல தனித் திறன்களைக் கொண்டிருந்தனர். இவர்கள் பெண்களை வசியம் செய்யும் முறையை அறிந்திருந்தனர். இவ்வசிய மருந்தை ஆண்மகன் உண்டால் மரத்தால் செய்த பாவையும் அவனைப் பின் தொடர்ந்து வரச் செய்யும். அதுமட்டுமன்றி மனத்தால் பிரிந்தவர்கள் கூடி இருப்பதற்கான மருந்தும், எப்பொழுதும் பிரியாமல் இருப்பவர்களைக் கலைப்பதற்கான மருந்தும், குறளி வித்தை, கண்கட்டு வித்தைகளும், மோகினிப் பேய் மந்திரத்தையும் இவர்கள் நன்கு அறிந்திருந்தனர் என்பதனை,

“வாடை மருந்துப் பொடியும் அம்மியூர்
 மரப்பாவை பின்தொடர மாயப்பொடியும்
 கூடியிருக்க மருந்தும் இருபொழுதும்
 கூடியிருப் பார்களைக் கலைக்க மருந்தும்
 காடுகட்டும் கிளிக்கட்டு குறளி வித்தை
 கண்கட்டு வித்தைகளும் காட்டித்தருவேன்
 வேடிக்கைக் காமரதிபோல் திரிகூட
 வெற்பிலுறை சிங்கிதனைக் காட்டாய் ஐயே”. 12

என்ற பாடல் அடிகளில் இவர்களின் வசியம், மாயப்பொடி, மந்திர வித்தை போன்றன முன்னர்க் காலங்களில் இருந்திருந்ததை அறிய முடிகிறது.

குறவர்களின் காதல் வாழ்க்கை

குறவர்கள் ஒருவனுக்கு ஒருத்தி என்ற ஒழுக்க முறையைப் பின்பற்றினார். குறவனும் குறத்தியும் வேலையின் காரணமாகப் பல இடங்களுக்கும் ஊர்களுக்கும் சென்றாலும் அவர்கள் நிலையாய் ஒரே இடத்தில் வாழ்க்கையை நடத்த முடியவில்லை. இவர்களின் இந்தப் பிரிவானது அன்பைக் கூட்டியதே தவிர குறைக்கவில்லை. சில நேரங்களில் ஊடுதலும் கூடுதலும் இவர்களுக்குப் பழக்கமான ஒன்று. குறத்தியின்

மீது குறவன் தன் உயிரையே வைத்திருக்கிறான். குறத்தி பொருளிட்டவும், குறிச் செல்வதற்காகவும் வெளியிடங்களுக்குச் செல்வதால் அந்தப் பிரிவானது குறவனை வாட்டியது. அதனால் குறத்தியைத் தேடி குறவன் நாடு நாடாகத் திரிகிறான். அவர்களின் இனிமையான நாட்களை எண்ணி ஏங்குகிறான். மீண்டும் அந்தப் பழைய நாட்களுக்குத் திரும்ப வேண்டும் என ஆசைப்படுகிறான். குறத்தியின் அழகு எண்ணி அவளது அண்மை தற்பொழுது தனக்குக் கிடைக்கவில்லை என ஏங்குகிறான். எப்பொழுதும் குறத்தியின் நினைவிலே இருப்பதால் வேட்டையாடும் தம் தொழிலைச் செய்ய முடியாமல் பறவைகள் யாவும் பறந்தோடின. இனிமேலும் குறத்தியைக் காணாமல் தன்னால் வாழ இயலாது என எண்ணி வேட்டையாடுதலை விடுத்துப் பல ஊர்களில் குறத்தியைத் தேடி அலைந்தான்.

இறுதியாகக் குற்றால் நகர் கடைத் தெருவில் குறத்தியைக் கண்டதும் தன்னிலை மறந்து நின்றான். நீண்ட இடைவேளைக்குப் பின்னர் சந்தித்த இருவரும் ஆடிப்பாடி மகிழ்ந்தனர். இவ்வாறு குறவர்களின் காதல் வாழ்க்கை என்பது இயற்கையோடு இணைந்துள்ளதனைக் குற்றால் குறவஞ்சியின் வழி நாம் அறியலாம்.

தொகுப்புரை

- குறவர் குல மக்களின் வாழ்வியலைக் குற்றால் குறவஞ்சியின் வழி நோக்கும்போது காலத்தால் மூத்த சமூகமாகத் திகழ்ந்ததை உணர முடிகிறது.
- குறவர்களின் இனத்தில் ஒருவனுக்கு ஒருத்தி என்ற ஒழுக்க முறையை இன்றளவும் பின்பற்றுவதைக் காண முடிகிறது.
- குற்றால் குறவஞ்சியில் குறிப்பிடும் குறவர்களின் தோற்றப் பொலிவில் இன்றைய காலத்தில் குறவனின் தோற்றம் மாறுபட்டாலும் குறத்தியரின் தோற்றம் மாறுபடாமல் இன்றளவும் உள்ளதனை நாம் பார்க்க முடிகிறது.
- குறத்திய குறிசொல்லும் பொழுது நற்குறி தோன்றினால் மட்டுமே குறி சொல்லும் பழக்கம் இன்றளவும் நிலவுவதனைக் காண முடிகிறது. மேலும் ஆண்களுக்கு வலது கையும் பெண்களுக்கு இடது கையும் பார்த்துக் குறி சொல்லுவது இன்றளவும் வழக்கிலுள்ளது.
- குறத்தியர் பொருளிட்டும் நோக்குடன் பல நாடுகளுக்கும் பல இடங்களுக்கும் சென்று குறி சொல்லிப் பரிசுகள் பல பெற்றதை நாம் அறிய முடிகிறது.
- போக்குவரத்து வசதிகளும் தகவல் தொடர்புகளும் இல்லாத காலகட்டத்திலேயே குறத்தியர் பல நாடுகளுக்குச் சென்று பல மொழிகளை அறிந்திருந்தனர் என்பதைக் குறவஞ்சி இலக்கியம் மூலம் அறிய முடிகிறது.
- குறவர்கள் வேட்டையாடுதல் குறி சொல்லுதல் மட்டுமல்லாமல் தேன் எடுத்தல், மாயப்பொடி, மந்திர வித்தை போன்ற பல தொழில்களை இன்றளவும் செய்து வருகின்றனர்.
- இன்றைய காலச் சூழலிலும் குறவர்களின் வாழ்வானது இயற்கையோடு இயைந்திருந்ததை நாம் கண்கூடாகக் காண முடிகிறது.

முடிவுரை

குற்றாலக்குறவஞ்சி இலக்கியத்தில் குறவர் இன மக்களின் வாழ்வியலை ஆராயும் பொழுது பல்வேறு விதமான சிந்தனைகள் தெளிவாக விளங்குகிறது. குறவர் இன மக்கள் தாங்கள் குறி கூறும் முன் குற்றால மலையில் வீற்றிருக்கும் இறைவனை வணங்கி அவர் புகழ்பாடி நற்குறி கூறுவர். மலையும் மலை சார்ந்த பகுதிக்குக் கடவுள் முருகப்பெருமான். குன்றிருக்கும் இடமெல்லாம் குமரன் இருப்பான் என்பர். ஆனால் குற்றால மலையில் உறைந்திருக்கும் குறும்பலா ஈசனை வணங்கிக் குறி கூறுவதன் மூலம் குறித்தியர் குறிஞ்சி நில கடவுளான முருகனை விடுத்து குறும்பலா ஈசனை வணங்கும் நிலையில் மாறுபட்டு நிற்பதனைக் காணமுடிகிறது. குறஞ்சி இன மக்கள் பல மொழிகளைப் பேசிப் பல்வேறு பரிசு பெறும் திறன் பெற்றிருப்பதோடு அவர்களின் பன்மொழிப் புலமையும் அறியமுடிகிறது.

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BENEFITS AND DRAWBACKS OF FRANCHISING IN BUSINESS GROWTH

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ABSTRACT

Franchising presents a unique model for business growth, providing both franchisors and franchisees have distinct advantages. From the point of view of franchisors, a critical challenge lies in maintaining brand quality while empowering franchisees with the autonomy to adapt to local markets. In the view of Franchisees must carefully weigh the cost of buying a franchise against the value of the support systems and established brand recognition provided. From the societal perspective, the impact of franchises on local economies is a subject of debate, with concerns raised about the potential overshadowing of independent businesses.

This analysis will in-depth into the multifaceted nature of franchising, examining its advantages and obstacles for both franchisors and franchisees. Moreover, it will critically evaluate the impact of franchise expansion on local economies, considering its potential effects on competition, future lifestyle, job creation, and the overall economic health of communities. By exploring these key aspects points, this study aims to provide a comprehensive understanding of the role of franchising in contemporary business and its implications for society.

INTRODUCTION:

Franchising has emerged as an important force in the international marketplace, creating a conducive environment for franchisors and franchisees to realize incredible business growth. The relationship of franchising, which is a specific arrangement between an established brand (franchisor) and independent business owners (franchisees), introduces a rather complicated scene that provides opportunities and challenges. Testing the practical application of the franchising world deeper and deeper, this research paper contemplates also the specific advantages, such as rapid expansion, reduced risk, enhanced brand recognition, and access to proven systems and support.

Nevertheless, this also critically scrutinizes the drawbacks that are inborn for instance loss of control, operational complexions, potential conflicts, and the financial burdens related with franchise fees and royalties. By examining and interpreting positive and negative aspects, this report is directed at obtaining a clear idea of franchising's part in the operation of a business in order to choose it as a mode of startup business.

REVIEW OF LITERATURE

FASA International is a huge engine in the U.S. financial situation--with more than 3,000 franchise systems existing as per today. (Falbe et al., 1998) Besides job creation, it is also a mechanism for accelerating economic growth. This popular entrepreneurial activity is often suggested to successful entrepreneurs who want to make their businesses part of large chains (Michael, S. C., 2003). This can be done if the franchisee pays an initial fee and ongoing royalties to the franchisor for the right to exploit the franchisor's brand and be a member of the franchisor's operating system (Combs et al., 2004).

- A Franchise Agreement will allow the franchisee to market a product or deliver a service using the franchisor's brand and operations methods under an agreement the franchisee has paid the franchisor for.
- The most significant development in retail in the post-War period was the rise of franchising which may be illustrated by the fact that it now represents over \$1 trillion in retail sales and employs millions of people (Dant & Kaufmann, 2003).
- The franchising model is a partnership that entails the input of a chain operator (franchisor) and a franchisee-entrepreneur in the diverse and multilayered process of creating economic value. Franchisees get the license to utilize the franchisor's name and business models (Barthelemy, 2011). On the international scene, franchising is one of the strategies that help to melt away cultural and language boundaries (Contractor & Kundu, 1998). To the authors of IFA Educational Foundation (2005) the establishment of franchise businesses in the U.S. economy which is the source of about one trillion annual sales, representing 17% of the U.S. GDP, is a remarkable event. U.S. franchise industry, therefore, creates economic activity of more than \$2.1 trillion, maintains 18 million jobs, and consists of 40.9% of the retail sector (Dant et al., 2011).

OBJECTIVES

- To explain the situation in which franchisees are flexible enough to respond to local conditions and, at the same time, guided and motivated by franchisors, the main purpose is, of course, preserving brand authenticity.
- To identify the possibilities, challenges, and current demand in the franchise industry.

METHODS

A conceptual study with a thorough theoretical approach to the advantages and limitations of franchising for business expansion is used. The study kicks off with a comprehensive literature review that contains a thorough evaluation of academic papers, industry reports, and in-depth case studies to lay a solid ground in the franchising dynamics.

FRANCHISORS MAINTAIN BRAND QUALITY AND LOCAL MARKET ADAPTATION

The establishment of qualitative control to keep up with the development and to provide customer satisfaction is one of the very important factors of the franchise operation. Conformity to the franchisors' quality standards is a crucial part in the success of a franchise which may be considered as a simple legal requirement while still going beyond that.

1. Clearly define and implement standards and regulations

Frankly, the foundations of franchise have such as franchising standards. One thing a franchisee really has to do is to set the precise and detailed criteria to ensure standardization of just all franchise sites. These policies should take care of the different aspects of the business, for example, interior design and brand messaging as well as customer service procedures and product quality.

2. Put in place routine quality checks

A franchise model is one in which a quality check is the only way to go about maintaining the defined standards. The strict compliance to the operational, service and product quality expectations of franchisees of each franchise brand is ensured by frequent and systematic inspections of their activities. These checks are based on predefined quality audit lists and can be monthly checks or site visits that are unannounced. The early finding and solving of the problems before they get worse is achieved by taking the proactive approach; it, therefore, protects the brand reputation and keeps the clients happy.

3. Collaborate with Skilled Franchise Management Firms

Franchise Management Firms can make a big change in the operations of the franchisors because their primary focus is on the management of a franchise. They examine the exceptions of franchise management and make the right knowledge, tools, and the right way to for operators to support them.

4. Make a comprehensive strategy for franchise evolution.

Proposing a well-thought-out business plan allows one to identify problems, and point out real-world solutions to those problems so that every new franchise is the perfect fit for both customers and franchisors.

5. Encourage Ongoing Education and Training for Franchisees

The training programs that are ran properly by the franchisees and their staff should be able to give them the knowledge about the high benchmarks which consumers and franchising brand require. These programs would be the ones that could not be held successfully if there were not frequent webinars, workshops, and online learning materials to help develop a culture of excellence and ongoing development throughout the network.

6. Make Use of Technology in Quality Control

The use of technology in franchising in the course of quality control is the most crucial thing to do.

With the software and digital tools, it would be much easier to issue training modules, control compliance, and conduct quality checks in a franchise system. To illustrate, a common issue of franchisors who do not use the already available technology is not only the difficulty they have in getting the data but also in tracking the performance of the various sites and spotting the ones that are not doing well to be able to deal with them accordingly.

7. Ask Customers for Input

Both franchisors and franchisees can more easily identify where the changes are needed and where they flourish by analyzing the customer feedback. This is how the franchise can continuously keep improving to exceed the consumer expectations.

One cannot not speak about how powerful customer is when it comes to making a grand influence to business. Top-level executives and founders of corporate businesses whose top priority is to achieve business sustainability in an unpredictable market firmly believe that this concept is the quotient that leads to the success of an enterprise.

8. Establish a Culture of Excellence Create Channels of Communication

The motivating main factor in franchise operations that drive most of the staff to strive for better is the well-performing culture in the franchise. The entire group is kindled by the environment of pure quality to endeavour at the highest levels of their business, be it product delivery or customer service.

A franchise system's ability to run efficiently rests on the strength of the communication between the franchisor and the franchisees.

Through establishing discussion boards or some other way, like the franchisees, we can find the cause of their anxiety, the support they need as well as their views on the services will be kept along of teamwork. By ensuring involvement, the total network is guaranteed to be flexible and united to the changes, in addition, prompt transition and spreading of the updates thereof to quality standards are enabled through it. As a result of an emphasis on open communication, franchisors will form a positive environment that will make all franchises continue to do a good job and become better.

IDENTIFY PREVAILING TRENDS, CHALLENGES, AND OPPORTUNITIES WITHIN THE FIELD.

In the course of our work, we look at different concepts and theories in franchising that are relevant to the roles of the two parties. Among the models included are those associated with the maintenance of the brand quality where franchisors can find just about the right techniques keeping them in their time frame and ensuring the same high standard in all the franchise units. Another aspect of this is dealing with the setting out of maximal autonomy to franchisee. For this, the major part of the exploration is the strategies for cultivating intrapreneurship and creativity franchises.

Franchising's socio-economic implications are critically examined as well. The pluses and pitfalls are attached to the project. On the one hand, the creation of employment opportunities, stimulation of local supply lines, and the supply of the reliable products and services are crucial. On the other hand, we bring up issues connected with the overshadowing of private entrepreneurship as well as possible decreases in competitive variety.

The paper synthesizes contradictory ideas to supply a complete and impartial valuation of franchising as a business model. Thus, we emphasize and elaborate on aspects, such as uniformity against flexibility, the relation between financial flows and franchising, and the societal benefits of franchising. On the other hand, this summary is not only for this but also serves as a visual signpost of which areas can be focused on in future research, a contribution to scholars and practitioners who want to know the ways franchising dynamics can be interpreted.

DISCUSSION

For Franchisors: The franchisee's brand quality is a critical challenge. Potential solutions and effective strategies include providing thorough training programs, ongoing support, and clear operational standards to ensure consistency across all locations. Franchisors must also foster open communication channels and offer flexibility for franchisees to innovate and respond to local market needs. Case studies of successful franchises will be explored to illustrate best practices in achieving this balance.

For Franchisees: The expenses associated with purchasing a franchise typically include an initial fee, ongoing royalties, and various other costs. Nevertheless, the advantages of being part of an established brand, receiving marketing support, and following a tested business model can greatly improve the chances of success. We will explore the extensive support that franchisors offer, such as training, marketing, and operational help. Additionally, we will address potential challenges, including adherence to brand standards and financial responsibilities, to provide a well-rounded perspective.

For Society: Franchises can have a positive impact on local economies by generating employment, boosting local supply chains, and providing consumers with dependable products and services. On the flip side, they may create challenges for independent businesses, which could lead to a decrease in market diversity and innovation. This discussion will delve into both the benefits and drawbacks, supported by real-world examples and economic data. We will analyze the role of franchises in community development and their effect on market competition to offer a comprehensive perspective.

CONCLUSION

Franchising presents a complex and multifaceted business model with both significant advantages and potential drawbacks. For franchisors, the key lies in balancing brand consistency with franchisee autonomy, enabling adaptation to local markets while maintaining high standards. Franchisees need to thoughtfully consider the costs of investment in relation to the advantages of being part of an established brand, having access to proven systems, and receiving ongoing support. On a broader scale, franchising can play a role in job creation and economic growth, but it also raises concerns about competition with independent businesses and the risk of market homogenization. More research is necessary to fully grasp the long-term effects of franchising on local economies and how the franchise industry is evolving in response to globalization and technological changes.

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GADGETS AND MENTAL HEALTH: A STUDY ON DIGITAL MINIMALISM

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ABSTRACT

Digitalization has affected the wellbeing of people today. Though digitalization has positive growth, the extensive use of digital devices by the young generation has become a problem for them and others. Digitalization has made youngsters less creative and more dependent on devices. This paper explores the impact of digital devices and simple strategies to achieve digital wellbeing.

KEYWORDS : *Digitalization, digital wellbeing, mental health, gadgets.*

INTRODUCTION

The new age is dominated by digitalization. Digitalization is all around us. Technology has made us too dependent on it. Every generation has some challenges to face and so does this. Gen Z is too dependent on digital gadgets. The positives of digitization are many but has become a matter of concern. The obsession with devices has impacted the health of youngsters. Several studies have shown the impact of devices on physical and mental health of adolescents. Some of the common complaints about digital overuse has led to various detrimental effects on the physical and mental health. Physical changes like obesity, eye problems, finger and hand pain, sleep deprivation are some of the major changes that are observed among youngsters. Mental health issues that are observed among youngsters is isolation, relationship problems, addiction, procrastination, stress, anxiety, dependency and distraction. The level of distraction that a device has brought in is a huge challenge to handle for the Gen Z.

Youngsters are not to be blamed fully for this. The situations around are such that they have to be in the digital world, and also take care of their mental health. This generation is very comfortable interacting with people on the phone and shy away in face-to-face interaction. The Fear of missing out (FOMO) keeps them glued to their phones, reducing their connection with people around.

LITERATURE REVIEW

“Digital Minimalism is a philosophy of technology in which you focus your online time on a few carefully selected activities that support the things you value” - Newport. It is a strategy to help people control their use of technology and keep from being overwhelmed by it. It helps

by suggesting ways to clear clutter and manage distractions. This literature review provides a comprehensive understanding of digital minimalism, its principles, and its impact.

Cal Newport is a central figure in the digital minimalism movement. His seminal book, *Digital Minimalism: Choosing a Focused Life in a Noisy World*, outlines the philosophy of reducing digital distractions to focus on meaningful activities (Newport, 2019). His TED Talk, “Quit Social Media,” elaborates on the benefits of digital minimalism (Newport, 2016, September). Nicholas Carr’s *The Shallows: What the Internet is Doing to Our Brains* provides a foundational analysis of how digital technologies affect cognitive functions (Carr, 2011). Carr argues that constant digital engagement impairs deep thinking and concentration, which aligns with the principles of digital minimalism that advocate for reduced digital consumption.

Johanna Drucker (2020) in her paper, “Digital Minimalism and Its Discontents,” critically examines the practical applications of digital minimalism. She explores the balance between digital engagement and minimalism, highlighting potential challenges in adopting such a lifestyle comprehensively. Michael H. Goldhaber’s (1997) work on the attention economy provides essential insights into why digital minimalism is necessary. These works underscore the importance of intentional digital use in enhancing focus, productivity, and overall well-being.

DIGITAL RESISTANCE

Digital invasion into our lives has several negative impacts. Though gadgets have several distracting features, they also have ways to reduce these distractions if used efficiently. There are built-in-features for digital minimalism that youngsters tend to ignore. The commonly available features in devices are listed below with the advantages they have.

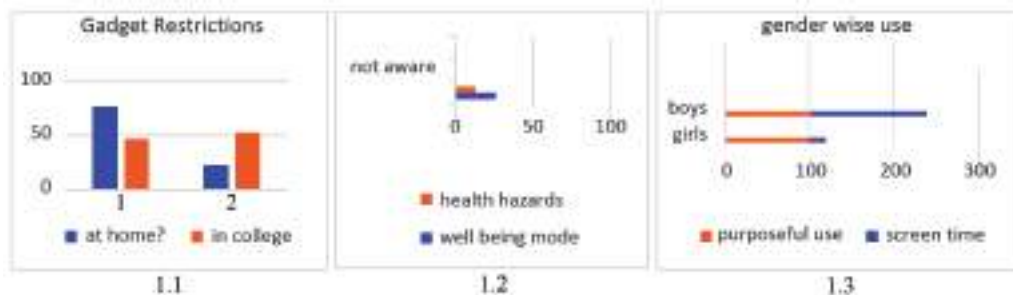
- Focus mode – to set time limit to use apps and hide notifications of certain apps.
- Bedtime mode – dims screen during night time and creates grayscale in screen making it less interesting to use.
- DND- Do not Disturb mode silences notifications for calls, messages and other interruptions.
- Digital wellbeing dashboard- shows usage of most used apps notification received and number of unlocks.
- Reminder to take breaks – to take a break from continuous usage.
- Parental controls- check usage of children and set what kind of apps are used.
- Notification manager- customizes the notifications for each app and set priority or silent the unwanted notifications.

In spite of the availability of many features for our well-being many of us tend to ignore the use of it. The resistance to use such features has had a toll on the sanity of people. To study whether the Gen Z uses such features available in their device a survey was conducted. The purpose of the survey was to identify the awareness of digital minimalism features and use of it. The results of the study will help us suggest ways to improve digital interference and move towards minimalism for good health and psychological health.

SURVEY

A survey involving 250 young adults from different colleges was conducted to assess the impact of digital devices, distractions and the awareness of various digital minimalism features. Participants completed questionnaire, a Google Form and the responses were analysed to derive the following results. The questionnaire was administered to students from different background and localities.

The results of the survey show the present scenario of gadget/phone use and its impact on the life of youngsters. The graph 1.1 indicates the gadget restrictions at home and college. The graph 1.2 shows their level of awareness of health hazards. Though many are being aware of the health hazards and well-being mode, they have not bothered to use it.



The respondents had stated that they had restrictions at home and at college regarding the use of phone or gadget. They also had stated in that the restrictions at home were for various reasons. Parents reprimanded them when they saw their children getting to immersed in the phone and not pay attention to their surroundings, people and studies. The respondents also mentioned that their parents would take away their phone by force or ask them to delete some apps. The respondents agreed to the fact that they used the phone more often than necessary for various reasons. They would search facts, look for meanings and pronunciation, search for lessons and summaries or additional notes. Other than using it for improving their knowledge they used their gadgets for social media connections, watching movies, scrolling through shorts, listen to songs etc. Many respondents were aware of the focus mode and digital wellbeing features in their phone, but would hardly use it.

They stated that they did not have a hobby hence to pass time they had no other option but to use their digital devices. It interested them more than talking to people in person. The data was analyzed gender wise too. Girls' use of gadgets was comparatively lesser than that of boys. The reasons girls use less is probably because they are engaged in household chores and hence their limited time with phone/gadgets. Some girls also stated that they had some hobby like gardening or stitching which helped them keep away from digital devices.

The respondents stated that they were losing patience easily and were getting too emotional unnecessarily. The device had impacted their mental wellbeing making them more conscious of their presence in the social media either through messages, chats, posts or pictures. They were aware that they had become addicted to certain games or apps and would not come out of it until forced by someone. In spite of knowing the health hazards the digital device caused, they felt its use more important than health. Many youngsters stated that they did not like sharing their gadgets, passwords with others. It was considered intrusion into their privacy and hence they would lock it away even from their family and friends. They would become restless and even shout if their phone was taken without their permission. They agreed that they would behave like a maniac if anyone accessed their device without their knowledge. They agreed that at times they would just scroll through something unnecessary to pass time, they would not get bored of it.

STRATEGIES TO RECLAIM MENTAL HEALTH

Digital minimalism is a philosophy that advocates for the intentional and selective use of technology to improve one's quality of life. To detox from the digital technology, one has to have a strong will power. Cultivating a hobby

to pass time would help youngsters keep away from social media, phone and gadgets. The following are some of the strategies that can help one keep away from digital devices and improve their mental wellbeing.

1. Minimalistic User Interface-choose unlikely UI
2. Offline activities-outdoor games
3. Turn off notifications-unsubscribe
4. Delete social media apps
5. Tech free zones-no phone zone
6. Use digital wellbeing apps
7. Back to reading books
8. Writing to calm mind
9. Drawing or painting
10. Travelling

Government regulations and intervention can also help in mental wellbeing of the society. Imposing restrictions on internet and apps that can be detrimental for the younger generation and society can be a step forward in protecting the youth from getting addicted to digital dependence. Mindful use of technology will beget a healthy society. A balanced approach not only enhances the emotional well-being of youngsters but also contributes to a more harmonious society which is the pressing need of the hour.

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ANALYZING BEHAVIORAL HEALTH CONDITIONS OF YOUTH IN LITERARY WORKS THROUGH CRIMINOGENIC STUDIES

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ABSTRACT

Behavioral health conditions such as depression, anxiety, substance use, and anger issues are critical factors influencing criminogenic behaviors, especially among youth. This paper explores the intricate relationship between mental health dynamics and criminal tendencies through a multidisciplinary lens, utilizing insights from criminogenic studies, literature, cinema, and real-life cases. By examining how behavioral health intersects with societal norms, environmental factors, and individual experiences, this study emphasizes the need for tailored interventions and comprehensive support systems. The findings draw upon qualitative analyses of narratives in books, films, and expert surveys, offering valuable perspectives on prevention, rehabilitation, and societal awareness of mental health in criminogenic contexts.

KEYWORDS: *Criminogenic studies Behavioral conditions, , anxiety, societal awareness.*

INTRODUCTION

Criminogenic studies play a pivotal role in understanding and addressing the factors influencing criminal behavior. These studies focus on identifying risk factors that may lead individuals toward crime while exploring strategies for effective prevention and rehabilitation. These risk factors often exhibit dynamic characteristics, influenced by life events such as job changes, shifts in family dynamics, or substance use. Such dynamism necessitates adaptable and evidence-based interventions.

Behavioral health conditions, including substance use, anger, anxiety, and depression, significantly influence individuals' thoughts, feelings, and actions. These conditions often intersect with societal challenges like juvenile delinquency, addiction, and recidivism. The purpose of this research is

to investigate the interconnection between mental health and criminology through the lenses of literary works, cinematic portrayals, real-life case studies, and expert analyses. By examining these elements comprehensively, the study aims to uncover the societal, psychological, and systemic factors contributing to the behaviors in question and advocate for creating an empathetic, supportive environment that reduces criminal tendencies.

Literature Review

Behavioral health conditions have been deeply explored in literature, offering valuable perspectives on their impact on individuals and society. Sidney Sheldon's *Tell Me Your Dreams* delves into dissociative identity disorder (DID) through the character of Ashley Patterson, who struggles with trauma-induced alternate personalities. The novel reveals how unresolved trauma can manifest in extreme psychological conditions, affecting not only the individual but also their environment. Similarly, Colleen Hoover's *It Ends With Us* focuses on the long-term effects of childhood abuse and domestic violence. Lily Bloom's narrative illustrates the cyclical nature of abuse and its psychological toll, presenting a nuanced portrayal of resilience and self-awareness.

Stephen Chbosky's *The Perks of Being a Wallflower* follows the protagonist Charlie as he grapples with depression and anxiety rooted in childhood trauma. The novel explores themes of social isolation and peer pressure, shedding light on the factors that render adolescents vulnerable to mental health struggles and delinquent behavior. Donna Tartt's *The Goldfinch* narrates Theo Decker's journey of addiction and guilt following the traumatic loss of his mother, highlighting the destructive coping mechanisms individuals often adopt to navigate grief and existential despair. Finally, Alex Michaelides' *The Silent Patient* intertwines psychological suspense with behavioral health by exploring themes of unresolved trauma and silence as a defense mechanism, culminating in revelations of suppressed culpability.

Methodology

This study employs a multidisciplinary approach, incorporating qualitative analyses of narratives from literature, cinema, real-life case studies, and expert opinions. Research was conducted through an in-depth exploration of selected books, films and surveys taken that depict behavioral health issues and criminogenic factors. The literary works analyzed include *Tell Me Your Dreams* by Sidney Sheldon, *It Ends With Us* by Colleen Hoover, *The Perks of Being a Wallflower* by Stephen Chbosky, *The Goldfinch* by Donna Tartt, and *The Silent Patient* by Alex Michaelides. Similarly, films like *Ratsasan* (2018), *Anniyan* (2005), *3 (Three)* (2012), and the Netflix series *13 Reasons Why* (2017) were scrutinized for their portrayal of mental health dynamics and their influence on criminogenic behaviors. By synthesizing these perspectives, the research offers a comprehensive understanding of how behavioral health conditions influence criminogenic tendencies. The narratives of necessity and their psychological underpinnings are explored in detail to identify recurring patterns and potential interventions. Insights from surveys and interviews conducted with psychiatrists, psychologists, and individuals with lived experiences further enrich the analysis.

Youth Target Group: Ages 18-30 Selected for Survey Analysis:

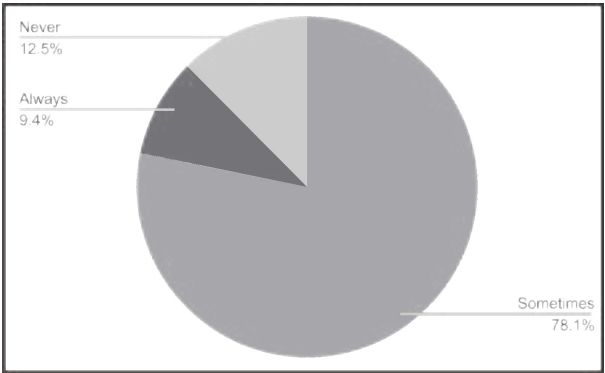


Figure 1 - Communication of Stress

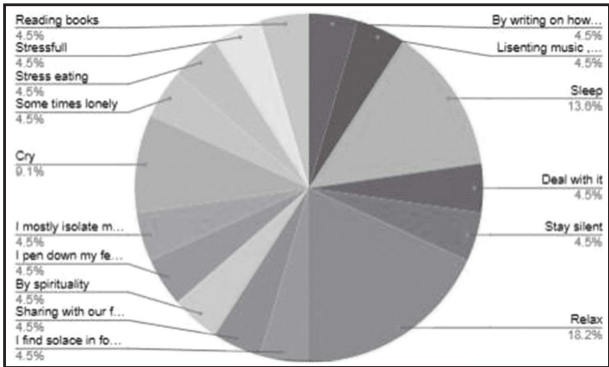


Figure 2 - Coping Strategies for Managing Depression

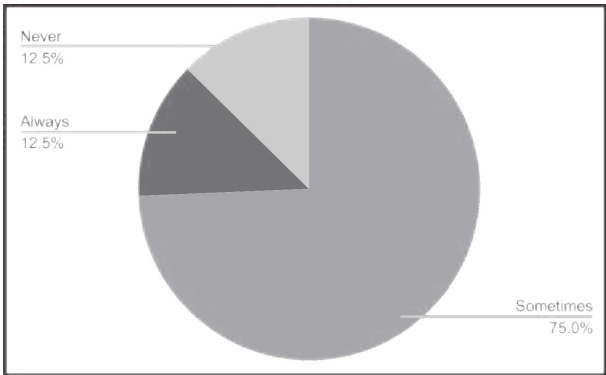


Figure 3 - Frequency of Depressive Feelings Over Recent Weeks

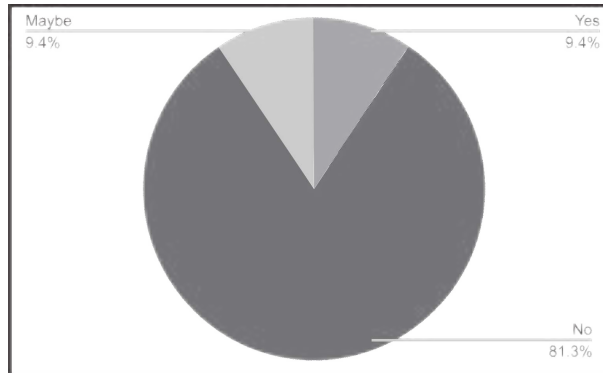


Figure 4 - Recent hallucinations or auditory experiences

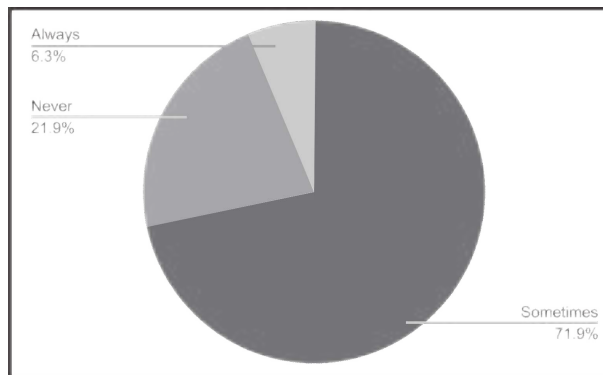


Figure 5 - Frequency of Excessive Worry or Fear

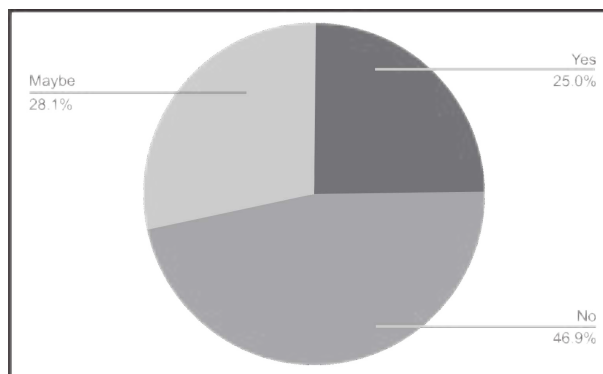


Figure 6 - Recent Difficulty Sleeping or Changes in Sleeping Patterns

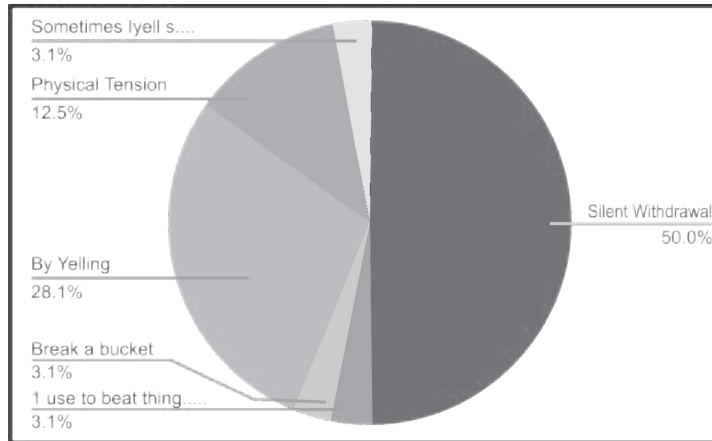


Figure 7 - Reactions during Episodes of Anger

Analysis and Results

In cinematic portrayals, behavioral health conditions are often dramatized to evoke empathy and raise awareness. Ram Kumar's *Ratsasan* examines the psychological descent of Christopher, who suffers from Werner's syndrome and becomes a serial murderer due to prolonged bullying and rejection. The film emphasizes the dire consequences of societal neglect and the need for early intervention. Similarly, *Anniyan* delves into multiple personality disorder, illustrating how unresolved trauma and perfectionism can lead to violent alter-egos seeking justice in a corrupt society. The psychological depth of these films underscores the connection between mental health conditions and extreme behavioral outcomes.

The Tamil film *3 (Three)* offers a poignant depiction of bipolar disorder through the character of Ram. The narrative highlights the devastating effects of untreated mental health conditions, emphasizing the importance of supportive relationships and timely interventions. Netflix's *13 Reasons Why* explores themes of teenage suicide, bullying, and trauma, presenting a stark portrayal of how untreated behavioral health conditions can spiral into irreversible consequences. These cinematic analyses collectively stress the urgency of addressing mental health issues in their early stages to prevent both self-harm and harm to others.

Real-life case studies provide further insights into behavioral health's impact on criminogenic behavior. The notorious case of Jolly Joseph, as documented in the Netflix series *Curry & Cyanide*, reveals a chilling pattern of manipulation and serial killings motivated by financial and personal conflicts. Her actions underscore the intersection of mental instability and calculated criminality, raising questions about societal awareness and systemic failures in identifying warning signs. Surveys conducted with psychiatrists and community members highlight the need for destigmatizing mental health, improving access to care, and fostering environments where individuals feel supported rather than alienated.

Discussion

The findings from literature, cinema, and real-life cases converge on the critical role of behavioral health in shaping criminogenic patterns. Societal stigmas, environmental pressures, and inadequate support systems exacerbate these conditions, often pushing individuals toward criminal behaviors. For instance, characters like Christopher in *Ratsasan* and Theo in *The Goldfinch* reflect the real-life struggles of individuals who lack the resources to cope with their trauma. Moreover, the glamorization of crime in media can sometimes blur the line between understanding and sensationalizing mental health struggles, necessitating a responsible approach to storytelling.

Addressing these challenges requires a multifaceted strategy that includes education, community support, and policy reforms. Schools and workplaces must prioritize mental health literacy to identify and address early warning signs. Healthcare systems should be equipped to provide affordable, accessible, and culturally sensitive mental health services. Lastly, criminal justice reforms should integrate rehabilitative approaches rather than solely punitive measures, recognizing the underlying behavioral health conditions that contribute to criminal behavior.

Conclusion

This research highlights the intricate relationship between behavioral health and Criminogenic dynamics, emphasizing the need for a compassionate and comprehensive approach to mental health care. By integrating insights from literature, cinema, and real-life case studies, the study underscores the importance of early intervention, destigmatization, and systemic support in mitigating criminal tendencies. A society that prioritizes mental well-being is better equipped to address the root causes of crime, fostering environments where individuals can thrive without resorting to harmful behaviors. Future research should continue exploring interdisciplinary strategies to bridge the gaps in understanding and addressing behavioral health challenges in criminogenic contexts.

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THE ROLE OF TECHNOLOGY IN SHAPING THE FUTURE OF COMMERCE AND BANKING

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ABSTRACT

It is important to understand the Future of Commerce and Banking in the Technological Era because consumers, policymakers, and businesses will have to prepare for the changes. This is necessary for stakeholders to make the right decisions about what to be prepared for. The research looks at how technology is changing the Future of Commerce and Banking. The paper covers advancements like mobile banking, e commerce, blockchain, AI, and big data and how they affect the sectors of the industry. The paper also looks at the challenges and risks associated with the adoption of technology, such as cyber security threats and regulatory barriers. Finally, the paper looks at the potential outcomes of these technological trends on businesses, consumers, and the economy.

KEYWORDS: *Technology, Commerce and Banking, Artificial Intelligence, Blockchain, Data Analytics, E-commerce, Mobile Banking, Cyber Security, Financial Inclusion, Regulatory Compliance.*

INTRODUCTION

Imagine a world where money moves at lightning speed, shopping is just a click away, and businesses can reach their customers in seconds, no matter where they are. This is the future of business and banking, and technology is completely reshaping the environment. It's changing how we live, work, and connect with each other. We're right in the middle of a tech revolution that's transforming the way we do business faster than ever. With e-commerce, electronic payments, and mobile banking, getting things done is easier, quicker, and way more accessible. We've left behind the days of old-school banking and business practices; now it's all about speed, convenience, and connecting globally. Things like globalization, digital changes, cyber security challenges, and complicated regulations have all played a role in this shift. We're witnessing the rise of innovative technologies like digital payment systems, online banking, blockchain, and artificial intelligence. These advancements make transactions faster, more secure, and much more efficient, pushing past the limits of traditional methods and rising to meet the needs of our modern world.

REVIEW OF LITERATURE

A FinTech product transformation expert and independent researcher believes that financial technology has really changed the way banks operate. They point out how FinTech has made customer experiences better through user-friendly digital platforms and customized services. The expert also emphasizes how FinTech has helped bring much-needed banking solutions to underserved communities, promoting financial inclusion.

When it comes to FinTech innovation, the author talks about the significance of blockchain, mobile apps, and artificial intelligence. They also underline that financial institutions should invest in acquiring talent and enhancing digital infrastructure to stay ahead of the competition. Overall, this work offers valuable insights into the game changing potential of FinTech and its far-reaching implications for banking and commerce moving forward.

OBJECTIVES

This research will:

- Examine that the large-scale technological changes that will happen that define banking and business in the future.
- analyse how these technologies alter various aspects of the business, such as making customers happy by satisfying their needs and want , providing more people with access to banking, and making things smoother
- Determine the risks and issues that arise when banks begin to implement new technologies. Technology allow us to customize product based on customer needs and higher level Satisfaction.

UPSIDES:

Banking:

1. Easy to Use

With online banking, customers have their accounts under control and perform financial things any time, any place, without visiting the bank.

2. Quick Delivery

A good connection makes for quicker transactions and bank services that get Done immediately, which makes it much easier.

3. Sound and Secure

With high-level encryption and code, your transaction and account data are nicely locked up, so online banking is secure and trustable.

4. Many Modes of Payment

Online banking is compatible with various methods of payment, such as cards, apps, and quick payment methods, so it's convenient and flexible for all.

Business:

1. Enables Small Business to Play Ball

Online business provides the tools to small businesses that allow them to compete with large corporations, so everyone's on a more level playing ground.

2. Simplifies Marketing

Online websites eliminate a good deal of the process in marketing, so sellers can have lower-cost products and higher profits.

3. Info on the Spot

Business sites provide you with the information clearly, and this allows customers and companies to make informed decisions.

4. Always Open

Customers can shop or make transactions at any time, anywhere, which is really convenient.

5. Better for You

Advances in going digital have bettered life for users, particularly in the context of banking, as more and more it becomes about what the customer is interested in with banking everywhere.

6. Save Money by Going Digital

Save money for both the bank and the consumer with online banking and new means of paying.

THE KEY TECHNOLOGICAL ADVANCEMENTS AND THEIR IMPACT ON COMMERCE AND BANKING

We've witnessed such incredible changes in the world, thanks to technology. Think about it: from the printing press, which completely changed how we share information, to the internet that brings us all together—these innovations have considerably shaped our society and improved our daily lives.

Technology	Impact on Commerce	Impact on Banking
E-commerce	Increased online sales, new Business models, global reach Increased online sales, new business models, global reach	Online banking, e payments, digital wallets Banking services on the go.
Mobile banking	financial inclusion, convenience, and personalized services.	There are so many aspects of it.
Block chain	Mobile banking applications, Secure transactions, and reduced costs are the two major benefits of block chain technology.	Using block chain to send money is less expensive and more.

Artificial intelligence	Fraud detection, risk management, personalized recommendations.	recommendations Chatbots, robo advisors, customer service.
Big data analytics	Customer insights, targeted marketing, decision making improvement	Credit scoring, fraud prevention, risk assessment.

CHALLENGES IN BANKING AND COMMERCE

Technology has been a boon for the banking industry and commerce, but with it has also come a fair share of problems, particularly on the cyber security front. With the increase in cyber threats like hacking, phishing, and ransom ware, banks must have Stringent cyber security measures.

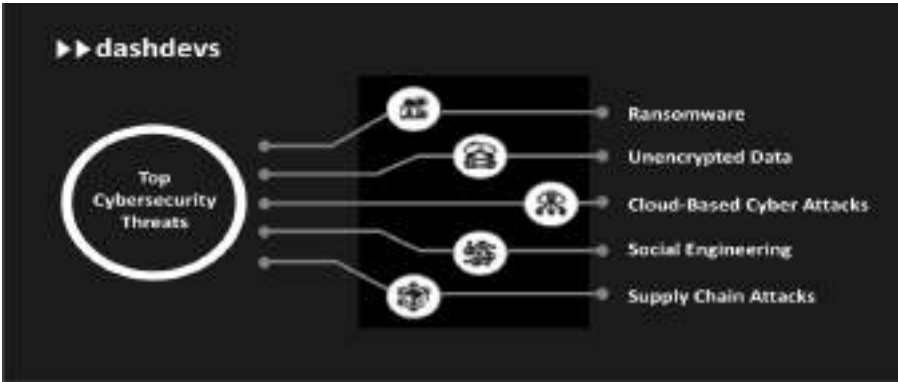


Figure 1: Top Cybersecurity Threats

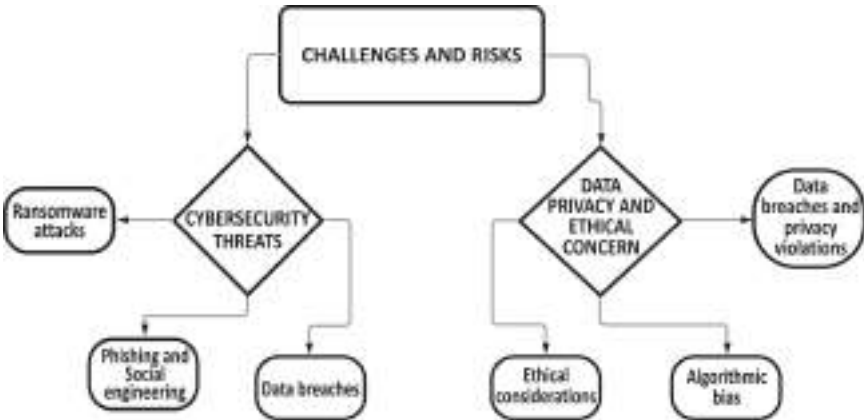


Figure 2: Challenges and Risks

1. Cyber security Threats:

The cyber-attack involve comprising a bank database with system level implications.

1. Risks to Cyber security in Banking

Challenges:

Data Breaches: Hackers take personal and financial data, or online shopping details. Phishing: Scammers try to get users to click on malicious links or give away passwords. Ransom ware Attacks: Hackers encrypt computers and want money to decrypt them.

Solutions:

- Equipments to installed with strong security to trap hackers.
- Employ multi-factor authentication; including fingerprint scanning and secure passwords.
- Maintain system and application software up to date to mitigate vulnerabilities.
- Regularly conduct security scans to uncover and resolve vulnerabilities.

REGULATORY COMPLIANCE REGARDING COMMERCE AND BANKING:

Banking and commerce environment are rapidly changing due to technology. It is now tough for regulators to keep up with innovation while ensuring compliance. New technologies such as AI, block chain and online shopping platforms pose tricky questions in terms of safety for consumers.

Return only the final updated text. The colleges play a significant role in the banking and business sector, educating future leaders on the continuous changes in the regulatory frameworks and compliance standards. The goal of higher education is to educate the next generation of leaders who can responsibly introduce new technologies, deal with changing regulations, and create a fair and sustainable business environment in both banking and trade.

FINANCIAL INCLUSION:

Many microfinance platforms, digital wallets, and mobile banking systems have made it easy for people from remote areas to access credit and transact finance. UG colleges in India are researching how technology can be used to solve problems of financial inclusion. It allows underserved individuals to access the formal banking system and improve their economic opportunities.

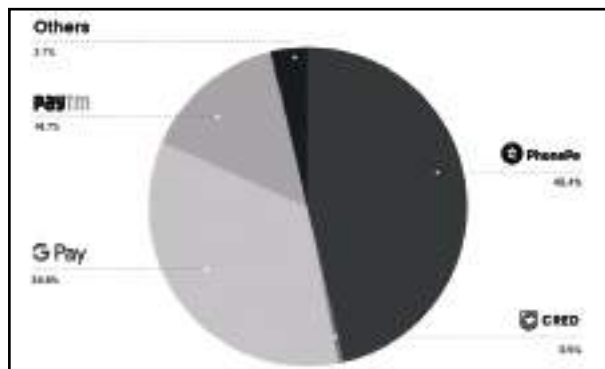


Figure 3: Financial inclusion

CONCLUSION:

The rapid growth of financial technology, commonly called Fintech, has significantly changed traditional banking. This transformation has improved customer experiences and made financial services accessible to more people. Stakeholders must cooperate and adjust as technology develops to handle opportunities and problems in this dynamic ecosystem. The future course of banking and commerce will ultimately be determined by the strategic integration of technology, which will spur innovation, efficiency, and expansion in the financial industry.

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LOUD YET SILENT SCARS: A STUDY ON ECONOMIC AND SOCIAL IMPACT OF SEXUAL VIOLENCE IN INDIA

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Abstract

With the recent alarming sexual cases against women in India, it becomes not only a talk of the country but also there are severe public outrages wanting justice for the victim and hoping for societal transformation. As a commerce student, examining how sexual violence impacts both the economy and society is a significant aspect of this study. This research, "Loud yet Silent Scars: A Study of the Economic and Social Impacts of Sexual Violence in India," focuses on the consequences both economically and socially faced by the survivors and its impact in the society. As a woman of this same society, creating awareness through writings is how I am to honour the victims.

KEYWORDS: *Sexual violence, women safety, women rights, gender inequality, sex education and awareness.*

INTRODUCTION

The real Independence is when the women feel safe to walk in the streets of India in the midnight'- an effective quote misattributed to be coined by Mahatma Gandhi. Sexual violence against women has been a never-ending tragedy in India. This has not only been a problem in this modern era but this sexual violence has been found even in ancient Hindu mythologies. For example, In the ancient Indian epic The Mahabharata, Draupadi, the wife of Pancha Pandavas was humiliated by Duryodhana by disrobing her in front of the onlookers and her 5 husbands since her husband's lost the game of dice and placed her as a wager. Another story, Ahalya, a beautiful woman and the wife of a sage, was deceived and violated by the god Indra, who disguised himself as her husband. As a result, Ahalya, who was innocent, was unjustly cursed by her real husband. Whether in past or present, the sexual violence against women is endless and women's safety is hanging by a thread.

LITERATURE REVIEW:

Most of the research focuses on the physical and mental health and well-being of the victims which can be seen through articles such as

“Violence Against Women in India: A Literature Review” by Radhika Coomaraswamy (1995). The objective of this article was to identify various form of violence faced by women within the family and community such as physical and psychological abuse. The study shows how pervasive is sexual violence against women in India and strategies or measures that needs to be taken to control them in future.

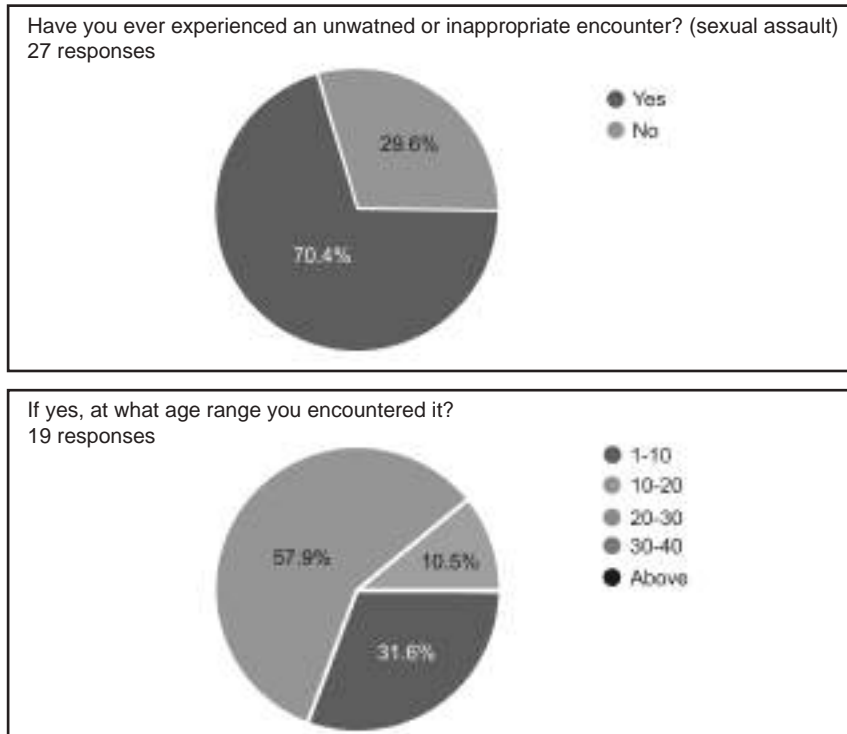
“Sexual Violence and Rape in India” by Anita Raj and Lotus McDougal (2014). The objective of the study was to examine the gender based violence among female sex workers in India. The research shows how sexual violence has high prevalence in India.

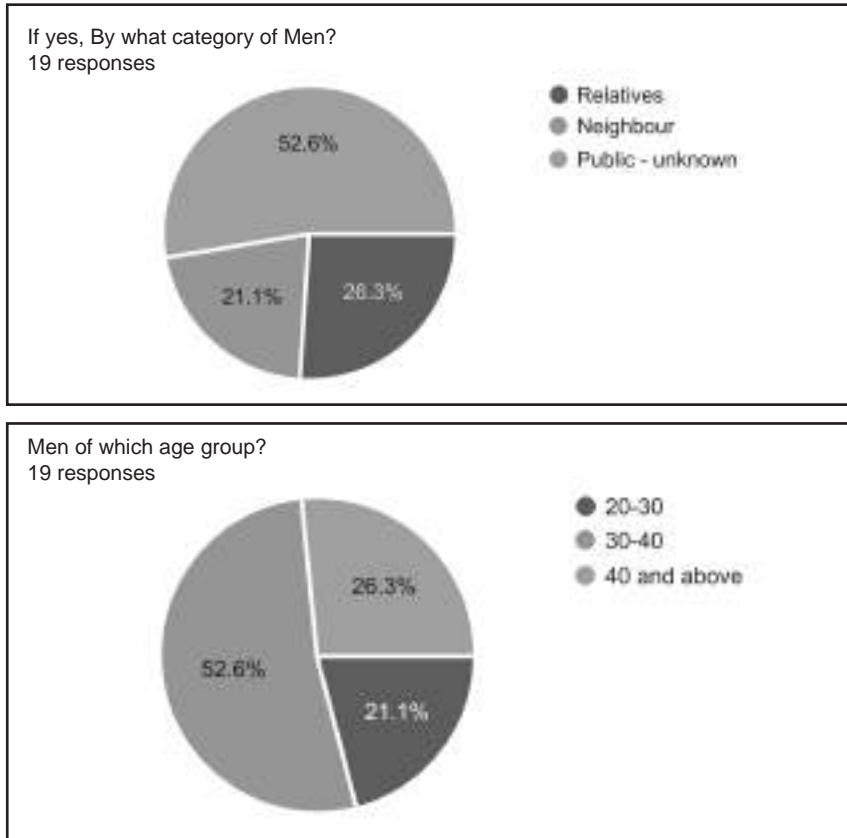
“Sexual Violence against Women in India: Daily Life and Coping Mechanisms” by Christina nieder, christoph muck and joscha kartner (2019). The objective was to study the daily experience of sexual violence against Indian women and how they protect themselves from it. The study reveals that how women protect themselves from the threat and also highlights the resilience of the survivors.

This research paper focuses on the economic and social impact of the survivors as well as the impact of those incidents to the society. The long-term consequences faced by the victims and survivors of sexual violence are untold. The media portrays only the protests and outrages of the public until the next sensational story emerges. With the reference to some case studies, this paper discusses the post life of the survivors-a life that can never return to what it once was.

METHODOLOGY:

The following data are primary sources of data, collected specifically for this research purpose.





The recent survey was conducted among the limited trusted individuals (women) of age group 18-25, focused on the sexual violence against women. No personal information was collected and disclosed for research purposes and the research also emphasis that not all men are to be blamed, but addresses those who involve in these monstrous deeds. The following inferences were drawn through it,

The data was then visualized using a pie chart to provide a clear representation of the proportional distribution of these impacts. Despite the small sample size, the visualization offers insights into prevalent trends and individual experiences.”

- Out of 27 respondents 19 were already prone to sexual assault and violence, which is equal to 70.4%.
- 57.9% of women have experienced the trauma at the age of 10-20, 31.6% i.e. 6/27, were prone to these dangers at the age of 1 to 10.
- In 26.3% of cases, even the family members are a threat to women. The relatives were involved in sexual violence against their own family member which is rather threatening. Women even lack safety in their own family.
- Men of age group, 30-40 are provoking the threat of sexual violence against younger women of age group 10-20.

As for the data from the secondary sources, sexual violence and assault has been the 4th most common crime against women in India.

According to the latest report of National Crime Records Bureau [NCRB], there were more than 31000 rapes cases reported in 2021. In India, an average of 86 cases are reported per day. Moreover, 71% of the rape (including marital rape) goes unreported.

In India, the judicial system faces significant challenges in addressing rape and sexual violence cases. Despite legal reforms, the conviction rates for reported rape cases have remained low, fluctuating between 27% and 28% from 2018 to 2022.

This indicates that only about one in four reported cases result in a conviction. Factors contributing to this low conviction rate include inconsistent application of laws, inadequate policing, and judicial reluctance to convict due to stringent sentencing guidelines.

ECONOMIC AND SOCIAL IMPACT OF SEXUAL VIOLENCE IN REFERENCE WITH CASE STUDIES:

CASE STUDY-1

Recent sensational case of a women trainee doctor who was sexually assaulted and murdered in a state-run hospital on August 9th 2024 in Kolkata. It was later found that, it was a pre-planned murder and a gang rape. The hospital was involved in illegal supply of drugs and organ trafficking. The trainee doctor who uncovered the illegal activities was subsequently threatened and later murdered brutally.

ECONOMIC IMPACT

- **HEALTH CARE**

The economic impact this situation holds is the outrage of doctors and students from all over the country fighting for justice. The IMA (INDIAN MEDICAL ASSOCIATION) has withdrawn duties nationwide wanting justice for 24 hours. Due to the decreased workforce participation and absenteeism, there is loss of productivity. After this incident, women may feel vulnerable to work in a hospital and the broader community.

Given that the state-run RG Kar Hospital has been implicated in drug dealing and organ trafficking, this could erode public trust in the government and the institution, fostering a sense of fear within the community.

- **LEGAL AND LAW ENFORCEMENT**

Not only in this case, but for majority of the rape cases in India, the justice is delayed. As the quote goes, "JUSTICE DELAYED IS JUSTICE DENIED."

This makes people not believe in the legal bodies/ lose trust in the justice. Till now the suspects are under investigation.

SOCIAL IMPACT

- **PUBLIC SAFETY**

Due to the recent incidents, many women are now living in fear, worried that they could be the next victim. This anxiety has led to a deep mistrust of men and society. Regardless of how they dress or when they go out, whether during dusk or dawn, women feel that they are at risk, reflecting a broader crisis in addressing and preventing sexual violence.

In reference with this case, a girl who participated in the protest for demanding justice for the trainee doctor was raped and murdered at night. Her face was beaten with a stone and made unrecognizable; the media did not report on this case.

CASE STUDY-2

THE NIRBHAYA CASE: Indian law does not allow the media to publish the victim's name therefore the victim was known as Nirbhaya meaning 'fearless'. A 22-year-old physiotherapy intern who was travelling in a private bus in South Delhi with her male friend was sexually assaulted and gang raped by 6 men including the bus driver and conductor after beating and injuring her male friend. She was taken to the hospital and 11 days after the assault she was moved to Singapore for treatment and died there two days later due to injuries.

ECONOMIC IMPACT

- **HEALTH CARE**

The victim's family faced all the health and medical expenses in their efforts to save their daughter, but despite their financial and emotional investment they couldn't save her. This has brought the family a significant financial burden and psychological trauma.

- **LEGAL AND LAW ENFORCEMENT**

There were widespread protests in India as well as abroad wanting justice for the victim. The public felt that the existing laws were not effective and wanted the accused to be severely punished. In 2013, The Criminal Law Amendment act, commonly known as Anti-rape Act was implemented which brought substantial changes in law. Although, laws were made but that did not stop molesters from performing such assaults.

CASE STUDY-3

A 17-year-old school girl in Rajasthan who was a gang rape survivor, was not allowed to attend her 12th board exams. The private school in which she secured 79% in 10th standard debarred her from attending her 12th exam saying, 'she would spoil the atmosphere'. Later this was registered with the police under **POCSO Act (Protection of Children from Sexual Offences) 2023**.

ECONOMIC IMPACT

- **EDUCATIONAL INSTITUTION**

The school unlawfully removed her name from the role, and debarred from writing exams. This incident has become a sensitive issue as the survivor of sexual assault was not treated with dignity, especially by the educational institution.

SOCIAL IMPACT

● IMPACT ON HUMAN RIGHTS

The incident severely impacted on the rights of the girl that includes.

- ✓ Right to Education- under Article 21A of the Indian constitution by debarring her from writing the exam the school violated her right to education.
- ✓ Right to equality- under Article 14 of the Indian constitution, the girl is discriminated against for the crime that took place against her.
- ✓ Right to life with Dignity- The girl has been debarred from writing exams after being sexually assaulted, this is further violating her dignity.

CONCLUSION:

The screams of the victims were loud yet they remained silent and unheard which turned into a haunting scar. As we have explored throughout the study, the scars left by the sexual violence are deep and beyond immediate recovery. The culture of blaming the victim in India has been pervasive and particularly the social media has made it even worse. On the recent case of the trainee doctor who was raped and murdered, the so-called men in social media posted, “she is not even pretty”, “she made 10 men happy”, “those 10 Men has no taste at all”. Additionally, a politician mentioned on previous rape cases saying that “women should cooperate to rape to avoid death”. Social media which should be a platform for support and advocacy has become arenas of further victimization. These filthy comments not only reinforce stereotypes but also put a burden of distrust in all women. Another comment saying, “Rape is ok, murder is inexcusable”. The men who are not raising their voice against these inappropriate behaviors of other men are also supporters of sexual violence against women. To put an end to all these, following measures need to be taken as to bring change in each and every individual and society in large.

1. Reshaping the attitudes from a young age- promoting sex education in schools that teaches gender equality, respect to all individuals and promotes positive masculinity.
2. Bring/make more effective laws that could provide safety to women and make the punishments brutal to the accused that scares any man who wishes to lay hands on any women inappropriately.
3. Creating awareness among people about the consequences of sexual violence.

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VIRTUAL CARTS vs BRICK & MORTAR: THE FUTURE OF RETAIL SHOPPING

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ABSTRACT

The retail landscape is evolving rapidly with the rise of virtual carts and digital shopping experiences challenging the traditional brick-and-mortar stores. Virtual carts, a cornerstone of online shopping, offer convenience and a personalized shopping experience that physical stores struggle to match. On the other hand, brick-and-mortar stores provide a tactile and immersive shopping experience that many consumers still value. As technology advances and consumer preferences shift, understanding the interplay between these two retail formats is crucial for predicting the future of shopping. This paper explores how virtual carts and physical stores are shaping the future of retail, examining their respective advantages, limitations, and the potential for their integration.

KEYWORDS: *Virtual Carts, Brick-and-Mortar, Retail Markets, Consumer's choices.*

INTRODUCTION

The retail industry is undergoing a significant transformation, driven by the growing prominence of virtual carts alongside the continued relevance of brick-and-mortar stores. Virtual carts, integral to online shopping, offer unparalleled convenience, a vast array of products, and personalized experiences powered by advanced algorithms, enabling consumers to shop from anywhere and granting retailers a global reach. However, this shift also presents notable challenges, including the lack of physical interaction with products and potential complications with returns and customer satisfaction. On the other hand, physical stores provide a hands-on shopping experience that online platforms cannot entirely replicate. These spaces allow consumers to directly engage with products, receive personalized assistance, and make immediate purchases, which contributes to their ongoing importance in the retail landscape. Despite the rise of e-commerce, brick-and-mortar stores continue to foster community connections and deliver a sensory experience that online shopping cannot match. As hybrid models emerge, blending the benefits of both online and in-store shopping, the future of retail is likely to be shaped by the integration of virtual and physical shopping experiences. This paper aims to explore this dynamic relationship between virtual carts and physical stores, offering an initial perspective that, with further refinement, can deepen our understanding of the evolving retail environment.

OBJECTIVE OF THE STUDY

- Compare consumer preferences between virtual carts (online) and brick-and-mortar (in-store) shopping experiences.
- Evaluate the economic implications of the shift from brick-and-mortar stores to online platforms on local businesses and the retail industry.
- Identify key challenges and opportunities faced by both virtual and physical retailers in the current market.
- Understand consumer behaviour and the factors influencing purchasing decisions in virtual and physical retail environments.
- Explore future trends in retail shopping, including potential hybrid models that integrate online and offline experiences.
- Provide strategic recommendations for retailers to adapt and compete in the evolving retail landscape.

REVIEW OF LITERATURE

The advent of e-commerce has been facilitated by rapid advancements in information technology, making it a cost-effective and efficient alternative to traditional retail. Research highlights that technological innovations have not only enhanced the accessibility of online shopping but have also contributed to its appeal, particularly among younger consumers and those balancing work and personal life (**Smith & Jones, 2022**). The integration of secure online payment systems, attractive discounts, and user-friendly return policies has further solidified online shopping as a preferred choice for many.

Despite the significant growth of online shopping, offline retail continues to hold its ground. Studies reveal that a segment of consumers remains loyal to physical stores, valuing the tactile experience and social aspects of in-person shopping (**Brown, 2023**).

Offline shopping is often perceived as a venue for quality assurance and personal interaction, which online platforms struggle to replicate (**Lee & Carter, 2021**). This dichotomy underscores the need for a hybrid approach, where online and offline strategies complement each other.

Recent research indicates that a substantial number of consumers use online platforms primarily for research purposes, such as exploring options and reading reviews, before making purchases in physical stores (**Davis et al., 2024**). This trend highlights the role of online shopping as a preliminary step in the decision-making process rather than a final purchase channel. Understanding these behaviours is crucial for online retailers aiming to enhance engagement and conversion rates.

RESEARCH METHODOLOGY

A Research methodology involves specific techniques that are adopted in research process to collect, assemble and evaluate data. It defines those tools that are used to gather relevant information in a specific research study.

Period of study: The primary data required for the study was collected in a fortnight in the month of August 2024.

Selection of Population: We have collected data from both male and female respondents of age more than 15, which includes youngsters, working professionals, home managers, and also retired staff.

Research Design: It is an arrangement of plan, which guides the collection of data and analysis of data. The purpose of research design is to ensure that the data collected is accurate and relevant. Any research work requires clarity of objective to be achieved effectively research. The descriptive design used for this survey.

Collection of data: Primary data was collected using Questionnaire and was properly coded, classified and tabulated using appropriate methods.

Sampling Design: A structured questionnaire was prepared and used to collect data from among 300 respondents using convenience random sampling method.

ANALYSIS OF THE STUDY

DEMOGRAPHICS OF RESPONDENTS

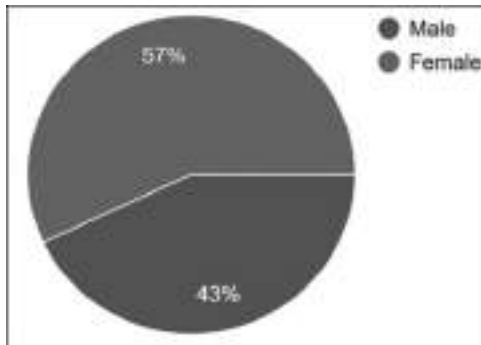


FIGURE 1 - GENDER

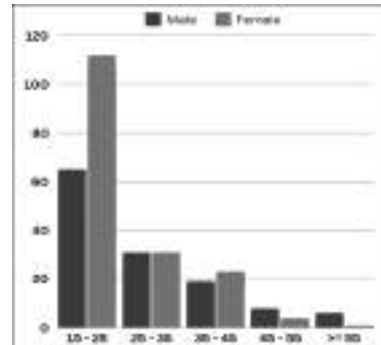


FIGURE 2 - AGE

TABLE - 1 (GENDER & AGE)

GENDER AGE	MALE		FEMALE	
	NUMBER OF RESPONDENTS	PERCENTAGE (%)	NUMBER OF RESPONDENTS	PERCENTAGE (%)
15 - 25	65	21.67	112	37.33
25 - 35	31	10.33	31	10.33
35 - 45	19	6.33	23	7.67
45 - 55	8	2.67	4	1.33
>= 55	6	2.00	1	0.34
TOTAL	129	43	171	57

Source: Primary Data – Questionnaire

Inference

From the above table and figures (1 & 2), it is inferred that 129 males (43%) and 171 females (57%) have responded to the questionnaire circulated. This implies that there were 14% more female respondents than male respondents. Also, it is noticed that the majority of respondents (59%) belong to the age group 15 to 25, i.e., youngsters and there are very few responses (2.34%) from people aged more than 55.

INTERPRETATION OF RESPONDENT'S CHOICE

1. Factors influencing consumers to select a particular product.

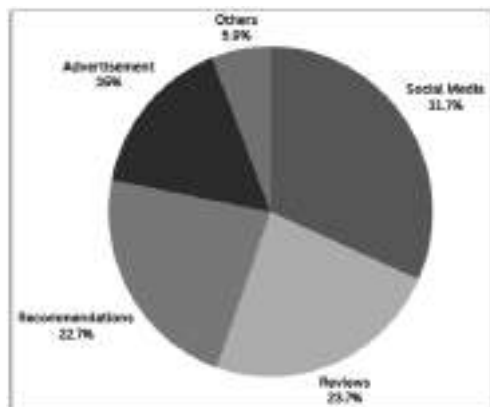


FIGURE 3 – FACTORS INFLUENCING CONSUMER'S CHOICE

Inference

Figure 3 provides us with the information about the sources which influence the consumer's choice to purchase a particular good or service. It can be seen that 31.7% of people (95 respondents) are influenced by social media like Instagram, Facebook, Twitter, etc..., 23.7% (71 respondents) by checking reviews, 22.7% (68 respondents) by recommendations from friends and family members, 16% (48 respondents) by viewing advertisements. Only 5.9% (18 respondents) have opted for other options like convenience, discounts, etc... Thus, we conclude that most of

the people are using social media as a platform to get information about a product.

2. Best time to buy a product.

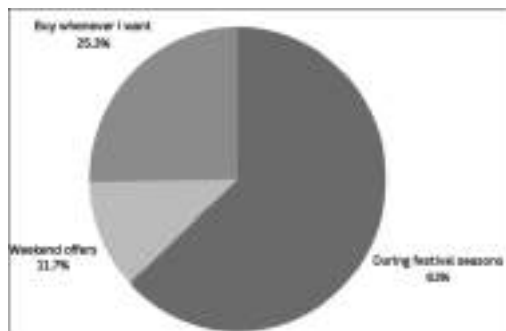
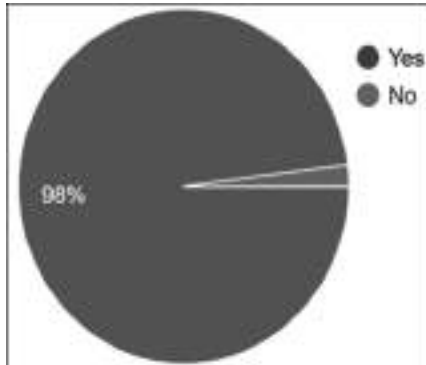


FIGURE 4 - MOST FAVOURABLE TIME FOR PURCHASING A PRODUCT

Inference

The choices chosen by respondents for the favourable time to purchase products is shown in Figure 4. 189 out of 300 respondents (63%) have selected festival seasons, 35 respondents (11.7%) have selected weekend offers and 76 respondents (25.3%) buy products according to their needs. Hence, it's observed that maximum people think that festival seasons are the ideal time to purchase items as this time period offers them with suitable discounts.

3. Reviewing product feedback before purchase.



Inference

To purchase a product, 98% of buyers (294 people) check the product's reviews before buying whereas 2% of buyers (6 people) decide themselves as per their preferences. This can be interpreted from the pie chart shown in Figure 5.

FIGURE 5 – REVIEWING A PRODUCT

4. Comparing E-Product Prices with Local Stores: Which Offers Better Value?

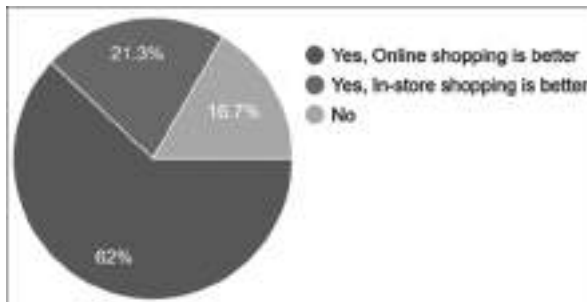


FIGURE 6 – COMPARISON BETWEEN PRODUCTS PRICES

Inference

Figure 6 shows us whether the respondents compare the prices of products between online and in-store shopping. 186 people, (i.e., 62%) conclude that online shopping is better, 64 people (21.3%) say that in-store shopping is better. It can also be seen that 50 respondents (16.7%) out of 300 have never compared prices between the retail purchasing.

5. Awareness about tax inclusion in product pricing.

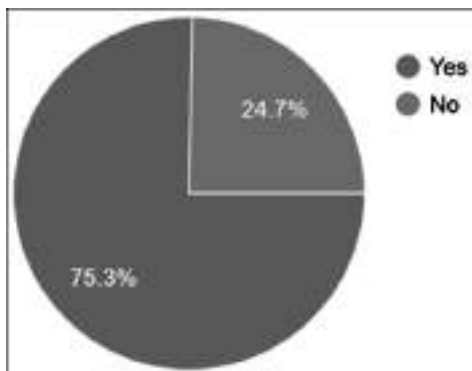


FIGURE 7 – AWARENESS ABOUT TAX INCLUSION IN PRODUCT PRICING

Inference

According to Figure 7, we can infer that 226 respondents (75.3%) are aware about the inclusion of taxes on the products bought both online and in offline ways, while 74 people (24.7%) don't have an idea about it.

6. Consumer's choice for mode of payment.

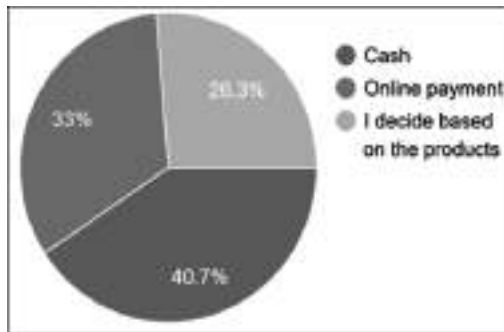


FIGURE 8 – CONSUMER'S CHOICE FOR MODE OF PAYMENT

Inference

The choices selected by the respondents for the mode of payments is shown in Figure 8. 40.7% of the customers (122 members) pay cash for the products, 33% of the customers (99 members) pay through online transactions and the rest i.e., 26.3% (79 customers) decide based on products.

7. Consumer's preference for mode of shopping.

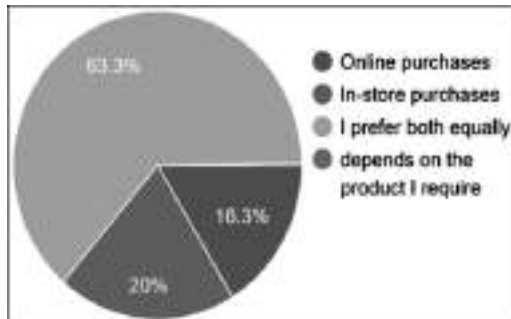


FIGURE 9 – MODE OF SHOPPING

Inference

Figure 9 provides us with the choices opted by respondents for the mode of shopping. 122 respondents have said that they prefer both e-commerce and offline shopping equally, 60 people have opted for in-store shopping, 49 people have opted for e-commerce, 1 person decides based on product required.

8. Reason for online shopping.

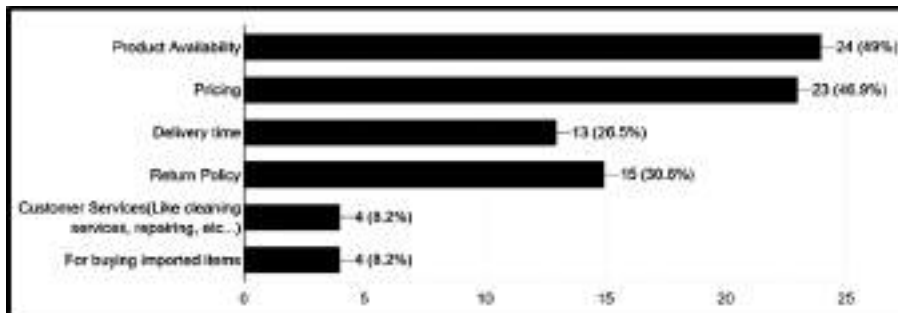


FIGURE 10 – WHY E – COMMERCE?

Inference

The reason why 49 out of 300 respondents have selected web purchasing is shown in Figure 10. It can be seen that the main reasons given by them are the availability of goods and services (57.2%), price efficient (46.9%) return policy (30.6%), buying imported items (8.2%), less delivery time (26.5%), etc.

9. From when online shopping?

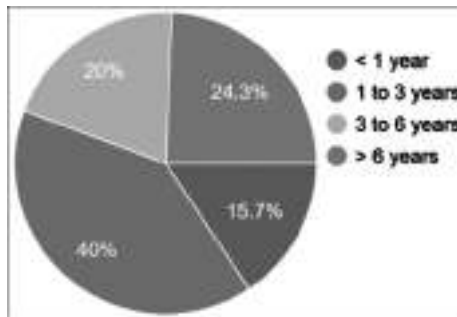


FIGURE 11 – FROM WHEN ONLINE SHOPPING

Inference

Back from how many years people have shifted to online shopping is given in figure 11. 15.7% of respondents have started to use online shopping methods from less than a year, 40% have started to use from less than 3 years, 20 % of people have selected the option of 3 to 6 years. The rest 24.3% have shifted to online shopping a long ago (6 years).

10. Reason for brick and mortar.

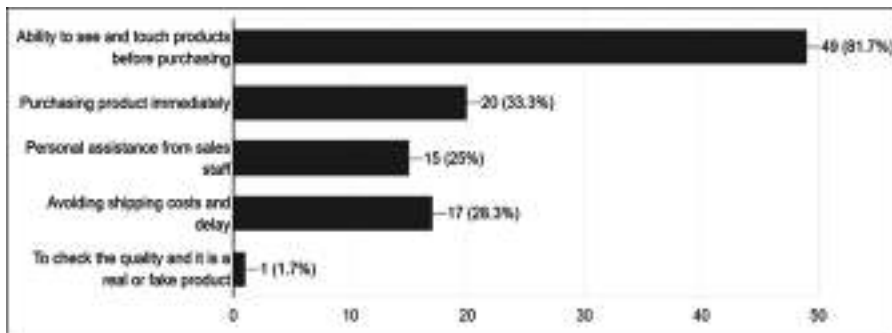


FIGURE 12 – WHY IN-STORE SHOPPING?

Inference

The reason why 60 out of 300 respondents have selected in-store shopping is shown in Figure 12. It can be seen that the main reasons given by them are the ability of touch and feel goods before buying (81.7%), ability to purchase goods immediately (33.3%), getting personal assistance from sellers (25%). Rest of the respondents chose offline shopping to avoid shipping prices and delay.

FINDINGS FROM THE STUDY

- Out of 300 respondents, there were 42 more female respondents compared to males.
- Majority of the respondents (59%) belong to the age group: 15 to 25.
- Social media (31.7%) is the major platform for influencing consumer's choice for products.
- Maximum number of people (63%) buy products during festival seasons.
- Before purchasing a product, most of the consumers (98%) knowledge themselves by checking reviews for it.
- After comparing prices of products between online and in-store shopping, 62% of the respondents say web purchasing is better.

- 75.3% of people are aware about tax inclusion in the fares of the products they buy.
- Majority of the respondents (40.7%) pay by cash.
- Maximum respondents (63.3%) prefer both online and in-store shopping.
- The variety of goods and services available in e-commerce has made 16.3% people choose it. Majority of these people (40%) have started to purchase online from past 1 to 3 years i.e., after COVID-19 pandemic.
- 20% of the overall respondents have preferred shopping through brick and mortar. 81.7% of these people have preferred it because of the ability to touch and feel products before purchasing.

CONCLUSION

The future of retail will be defined by the seamless integration of brick-and-mortar stores with virtual shopping platforms, creating a unified and dynamic customer experience. Retailers who effectively blend the immediate gratification and sensory engagement of physical stores with the convenience and innovation of online shopping will stand out. Embracing technology, such as mobile apps and AI, enhances personalization and efficiency, while addressing online security concerns is crucial to protect consumers from scams and fraud. Additionally, a commitment to sustainability and leveraging data-driven insights will further strengthen consumer trust and operational success. In this evolving landscape, success will depend on the ability to harmonize physical and digital shopping experiences while remaining adaptable to emerging trends and consumer expectations. Focusing on sustainability and using data to understand customer preferences will also play a big role. Ultimately, the key will be to offer the best shopping experience that adapts to both physical and digital trends while addressing security and environmental concerns.

ACKNOWLEDGEMENT

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SMART TEMP ZONE (IOT)

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ABSTRACT

The goal of the Room Temperature and Humidity Detector project is to create a system that continuously measures and reports temperature and humidity in real-time. Using an ESP32 microcontroller and a DHT11 sensor, the system will display the data on an LCD screen and send it to a web server for remote access. It will also log the data in an Excel file for detailed analysis. This system aims to improve how environmental conditions are monitored and managed in homes, offices, labs, and server rooms.

KEYWORDS: *ESP32 Microcontroller, DHT11, Room temperature and humidity detection, remote access.*

PROBLEM STATEMENT:

Traditional temperature and humidity check methods often require manual checks and do not provide real-time data updates. Likewise, many existing systems have limited data storage and offer no remote access. That makes it difficult to manage conditions effectively, and to track changes over time. The goal is to create a solution that utilizes IoT technology to monitor temperature and humidity in real-time, makes it accessible remotely and logs the information.

INTRODUCTION

Environmental monitoring is important to ensure optimal conditions in the home, office, or lab as temperature and humidity can greatly affect comfort, health, and efficiency. Most traditional methods imply manual checks without real-time data availability. This project is the IoT-based Room Temperature and Humidity Detector that can help to overcome these issues by automation and 24/7 monitoring. Sending real time temperature and humidity sensor data using esp32 and web server with DHT11 sensor and LCD screen. There are some salient features such as gathering data in real time with DHT11 sensor, instant visual feedback shown in an LCD screen, remote monitoring via Wi-Fi connectivity of ESP32 and maintaining a log.

OVERVIEW OF THE PROJECT:

Room Temperature and Humidity Detector Project Description: The Room Temperature and Humidity Detector is an electronic project that uses ESP32 microcontroller and DHT11 sensor to continuously monitor the environment. It collects information on temperature and humidity, shows the data on an LCD, and sends it to a web server via Wi-Fi for remote access. The latest readings are on the website. It also stores the data into excel. Through the use of hardware and software, this project implements a complete IoT solution that provides real-time visual feedback and allows for remote monitoring. It keeps a record of environmental conditions and adjusts them for the best settings in homes, offices, laboratories, server rooms, and more. Instant alerts and remote access allow users to act before potential issues arise, improving efficiency and preventing issues altogether. This makes it a reliable and innovative solution for maintaining ideal conditions in critical environments.

EXISTING SYSTEM:

Standard room temperature and humidity monitoring systems use independent instruments with display screens that need manual observation of readings. Advanced room monitoring systems with basic data loggers record temperature and humidity data yet require manual data access because they lack real-time access capabilities. Users face multiple drawbacks when using existing standalone devices because they require manual device checks that take valuable time and offer restricted data storage capabilities and lack real-time accessibility and poor connections with external devices in operation.

PROPOSED SYSTEM:

The Room Temperature and Humidity Detector system based on IoT technology advances conventional environmental procedures by introducing innovative components. A microcontroller based on ESP32 together with a DHT11 sensor allows the system to measure temperature and humidity with precise accuracy throughout its operation. An LCD display shows data directly as visual feedback at that moment. Real-time data measures transmit through Wi-Fi to a web server which enables remote website access with updated readings.

The system maintains real-time recording of environmental data in spreadsheet format while it stores complete monitoring logs in an Excel database. The system provides users with tracking capabilities for monitoring changes across different time periods while showing environmental pattern information. The system eliminates the need for manual checks because it provides remote data access simultaneously with existing technological integration. The system works perfectly well in homes along with offices and both laboratories and server rooms due to its critical need for maintaining ideal environmental conditions. The fusion between hardware and software elements produces an effective and reliable monitoring system.

SYSTEM REQUIREMENTS:

The system for the Room Temperature and Humidity Detector consists of three main units: sensors, connectivity, and display.

Sensors: This unit includes the DHT11 sensor, which measures temperature and humidity. The sensor gathers data about the room's environmental conditions, providing accurate readings essential for monitoring.

Connectivity: The ESP32 microcontroller acts as the core of this system, gathering data from the DHT11 sensor and connecting to a Wi-Fi network. The ESP32 is responsible for transmitting the sensor data to a web server for remote access and updating the data on a dedicated website.

Display: This unit includes an LCD screen with an I2C interface. It provides real-time visual feedback by displaying the current temperature and humidity readings locally.

Together, these units work seamlessly to provide continuous, real-time monitoring of environmental conditions. The system collects data from the sensors, processes it via the ESP32, and displays it both locally and remotely, ensuring efficient and accessible monitoring.

SOFTWARE REQUIREMENTS:

Operating system: Windows 10

IDE: Arduino

Coding language: C

HARDWARE REQUIREMENTS:

Board: ESP32 Microcontroller

Sensors: DHT11

Display : 20 x 4 LCD

Other: Male - Female Jumper Wire 10cm, Female - Female Jumper Wire 10cm, Male - Male Jumper Wire 10cm, 25W Adapter, MicroUSB, I2C LCD Display Connector.

COMPONENTS DESCRIPTION:

DHT11 SENSOR:



FIGURE OF DHT11 SENSOR

The DHT11 stands as an economic digital sensor utilized widely to measure both temperature and humidity. This sensor communicates through its single-wire digital interface so it easily links with microcontrollers including the ESP32. This sensor contains two integrated elements: a thermistor used for measuring temperature simultaneously with its capacitive sensor that performs humidity detection. This sensor operates internally to convert data into digital signals which are transmitted

through its data pin without requiring analog input interpretations. DHT11 proves perfect for home automation and weather monitoring tasks and IoT-based environmental sensing because it features a basic design and minimum power needs while delivering stable measurements. The DHT11 operates effectively for fundamental environmental measurement purposes when basic accurate readings of temperature alongside humidity are necessary.

ESP32 MICROCONTROLLER:

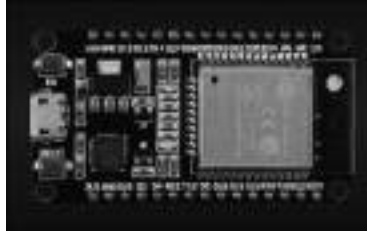


FIGURE OF ESP32 MICROCONTROLLER

The ESP32 is a high-performance microcontroller with integrated Wi-Fi and Bluetooth, making it ideal for IoT projects. It processes sensor data, controls devices like LCD displays, and communicates wirelessly with servers, making it central to managing and transmitting information in connected systems.

LCD DISPLAY:

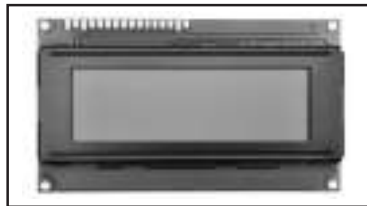


FIGURE OF LCD DISPLAY

A 20-by-4 liquid crystal display has four rows of 20 characters each, for a total of 80 characters of information that can be shown. Alphanumeric data is frequently displayed using it in a variety of electrical gadgets.

I2C:

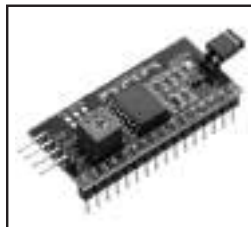
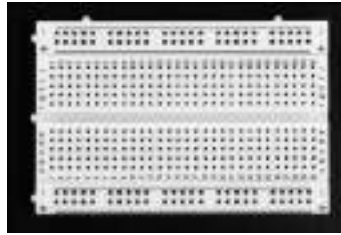
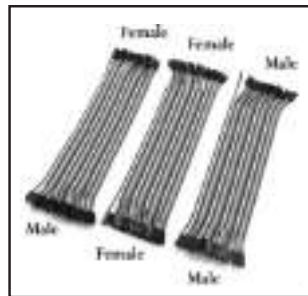


FIGURE OF I2C MODULE

Inter-Integrated Circuit is what I2C is. In an embedded system, I2C is a straightforward two-wire serial protocol that facilitates communication between two chips or devices. SCL and SDA are the two lines of I2C; SCL is used for the clock, and SDA is utilized for data.

BREAD BOARD:**FIGURE OF BREAD BOARD**

The white breadboard has a rectangular shape in which you can insert electronic components through tiny holes. The electronic project requires frequent use of breadboards. Electronics construction projects find their beginning foundation through the usage of prototype breadboards. The alternative name for breadboard is solderless board. The component requires no soldering procedure to be placed correctly within the board. Because of its design we can declare the breadboard as a reusable instrument. The board allows quick and easy component installation by connecting its end terminal directly. Breadboards earn their alternate name of plugboard because of their established usage.

JUMPER WIRES:**FIGURE OF JUMPER WIRES**

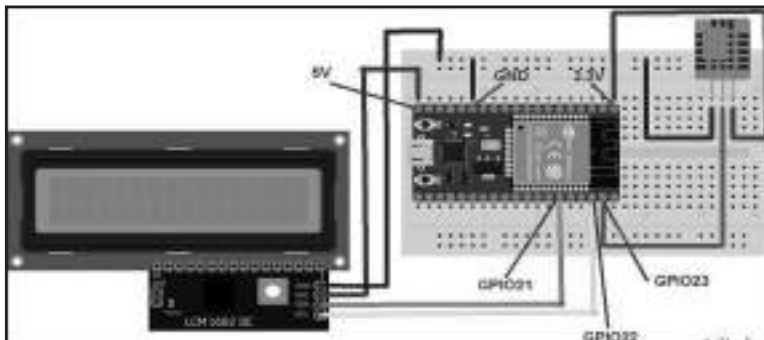
The printed circuit board (PCB) depends on jumper wires as vital electrical connectors to link separate circuits which are positioned at a distance from each other. The device enables wire bypass and modification together with short-circuit operations to serve fundamental needs within circuit adjustments and prototyping and troubleshooting processes. When attaching a jumper wire the electric current flow becomes manageable while allowing the user to stop circuit operations and activate dormant circuits. Jumper wires provide three essential capabilities which include reinforcing faulty components as well as disabling unnecessary functions and modifying circuit configurations to execute design or specification changes. The functionality of jumper wires enables engineers and technicians to explore various electrical routes during their actions of design testing and hardware modification without modifying the permanent characteristics of the PCB. The widespread usage of jumper wires in electronics development includes repair work and tests since they enable efficient prototyping of breadboard circuits along with microcontroller-based projects and PCB layout debugging. Electronic and electrical engineers rely on jumper wires because they provide critical adaptability and efficiency when working on circuit design and implementation.

ADAPTER:**FIGURE OF 25W ADAPTER**

An adapter is a compact power supply unit that provides up to 25 watts of power to electronic devices. It converts alternating current (AC) from a wall outlet into a stable direct current (DC) suitable for powering devices like the ESP32. Its compact design makes it suitable for small electronics, ensuring efficient power delivery and reliable operation.

MICRO USB:**FIGURE OF USB MICRO CABLE**

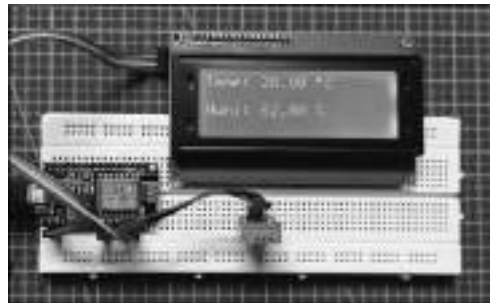
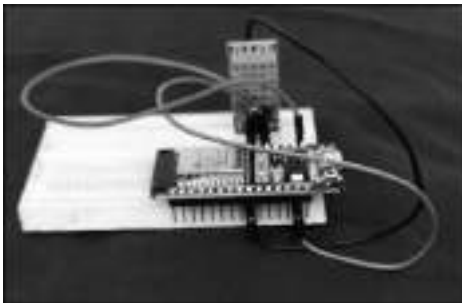
The micro USB is a compact connector used for power and data transfer. It connects devices like the ESP32 to power sources and allows for firmware uploads. Its small size and widespread use make it a convenient standard for modern electronics.

CIRCUIT DIAGRAM:**ALGORITHM FOR THE CIRCUIT CONNECTION:**

1. Connect the DHT11 sensor's VCC pin to the ESP32's 3.3V pin.
2. Connect the DHT11 sensor's GND pin to the ESP32's GND pin.
3. Connect the DHT11 sensor's data pin to a designated digital input pin on the ESP32.

4. Connect the LCD display's VCC pin to the 3.3V pin of the ESP32.
5. Connect the LCD display's GND pin to the ESP32's GND pin.
6. Connect the LCD display's SDA and SCL pins to the respective SDA and SCL pins on the ESP32.
7. Ensure the ESP32 is connected to a Wi-Fi network by configuring the network settings in the code.
8. Open the Arduino IDE, select the ESP32 board and appropriate port from the Tools menu.
9. Write or load the code to read data from the DHT11 sensor, update the LCD display, and send data to a web server.
10. Verify and compile the code, then upload it to the ESP32 board.
11. Power the ESP32 by connecting it to a USB cable with an adapter.

IMPLEMENTATION AND RESULT:



FIGURES OF REAL-TIME CIRCUIT DIAGRAM



FIGURES OF FINAL OUTLOOK OF WORKING SENSOR



FIGURE OF INITIAL WEBPAGE



Figure of overall outlook of the webpage



Figure of the webpage showing a pop-up when the temperature higher than the threshold

FUTURE SCOPE:

Multiple improvements and practical applications exist for the Room Temperature and Humidity Detector project in its future development. When additional environmental sensors like air quality and CO2 sensors along with light detectors are included the system becomes a multi-function environmental monitoring platform. The integration of a mobile application allows users to view instantaneous monitoring data and past log records through their smartphones thereby enabling easier accessibility. Users will receive notifications through SMS messages as well as email or application alerts whenever temperature or humidity exceeds their specified threshold levels. AI alongside machine learning algorithms analyzes data to generate predictions and suggest optimal conditions through their algorithms. The system needs renewable power sources such as solar panels and other alternative energy systems for better sustainability purposes. Voice control functions through Google Home and Amazon Alexa platforms would let users manage their facility together with their connected smart devices. A system that stores data into the cloud delivers strong and expandable data administration capabilities. The system contains features for monitoring various spaces or extended areas which enable centralized administration in big facilities. Users can customize the dashboard design and monitoring display options through advanced security infrastructure that enhances the flexibility and usability of environmental monitoring systems.

CONCLUSION

IoT technology demonstrates its capabilities to enhance environmental monitoring through the Room Temperature and Humidity Detector application. The system uses a combination of ESP32 microcontroller with DHT11 sensor to persistently evaluate temperature and humidity measurements. An LCD display shows the collected information which your web server receives to enable remote data monitoring. The system surpasses conventional monitoring systems because it provides both instantaneous results as well as distant system control. This system suits places including residential homes or offices with labs and server rooms because environmental condition monitoring requires attention. Accurate instantaneous data allows entities to make better choices which subsequently leads to higher operational efficiency.

Future enhancements for this project include sensor expansion together with mobile application development and smart alert establishment and AI-assisted data assessment and renewable energy integration into smart home systems. The system will benefit from these improvements which will enhance its functionality and usability as well as sustainability features. This project proves the effectiveness of IoT technology for building performance-based environmental management systems which improve monitoring efficiency.

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PERSONALIZATION AND CUSTOMIZATION IN E-COMMERCE FOR GEN Z

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ABSTRACT

This paper gets deep into the way Gen Z is revolutionizing trade with its unique preferences, behaviour, and values. It investigates their dependence on digital platforms, the role of social media, and their longing for sustainability and assesses how businesses are adjusting to these changes. The future of business relies on their unique values and digital-first mindset of Gen Z. They are pushing businesses to innovate and adapt to match with their adaptations. They will be influenced by companies that provide personalization, eco-friendly practices, digital approach and marketing strategies. Such companies will be engaging this influential generation in the long term with sustainability. With these expectations, companies will secure long-term growth and relevance in a growing market. Such companies will be engaging this influential generation in the long-term growth and relevance in a growing market. Keywords: Gen Z commerce, commerce, e-commerce authenticity, influencers sustainability.

INTRODUCTION

Generation Z is transforming business with its digital-first model and interest in sustainability, adaptability, ethics, and authenticity. Young people choose social media and influencers, which change consumer behavior from traditional to e-business. The effects of Generation Z on the current commercial market are analyzed in this essay, including the appearance of new technical trends, the increasing importance and benefits of sustainability, the results of social media marketing, and key company transformations.

REVIEW OF LITERATURE

The report of McKinsey, True Gen- Generation Z and its Implications for Companies highlights that Gen Z- as digital natives, authenticity, sustainability, and ethical consumption. Social media has compelled them to seek individualized online and in-store purchasing experiences. Their preferences provide problems for e-commerce, necessitating creative, open, and goal-oriented approaches to draw in and keep tech-savvy and socially conscious generations.

Kapoor et al. 2022 recognized in their research paper the influence of social media on Gen Z's purchasing decisions. The study explained that social media platforms are critical and create problems in shaping Gen Z's consumer shopping behaviour, and force people to be trusted sources of brand recommendations. Genuine was identified as a key factor for successful engagement in e-commerce, as Gen Z values connections over traditional advertising methods. The research highlights the growing popularity of social media in modern commerce strategies.

UNDERSTANDING GEN Z

People who were born in the late 1990s and 2000s. are referred to as Gen Z They were born and nurtured during the emergence of the internet, hence the term “digital natives.” They depend heavily on technology for communication, shopping, entertainment, etc, They value sustainability, ethical consumption, and social justice expecting brands to prioritize authenticity and transparency.

Their education and employment options have formed their global worldview, and as a result, they are a generation that expects firms to be innovative and flexible.

OBJECTIVES OF THE RESEARCH*

- To determine the impact of social media in Gen Z's purchase related decision.
- To analyze how businesses are revolutionizing with Gen Z's digital-first attitude.
- To find the impact of Gen Z values on commercial patterns.

IMPACT OF SOCIAL MEDIA AND INFLUENCERS

Social media platforms like Instagram, YouTube, TikTok, and Snapchat, play a vital role in shaping Gen Z's purchase decisions. Influencers act as trusted sources of recommendations and their authentic content often creates brand loyalty and sales among this generation. Generation Z opts for e-commerce as they find it more practical. They like the variety and the ease of shopping. They can do shopping whenever and wherever they are. Online platforms help them make decisions, provide customized tips, and aid with comparisons. Thus, shopping becomes more effective. Nonetheless, Generation Z still likes traditional commerce as they like the feeling of the goods. They appreciate the process of checking and trying the product. When combined with tech such as AR(augmented reality), VR, and QR codes, physical stores can provide a hybrid experience that would blend the best of both worlds to meet Gen Z's preferences.

It influences Generation Z's purchasing power and decisions, shaping not only what products they buy but also how they perceive brands, shopping, and consumerism in general. Here's an explanation of how social media and influencers influence Gen Z's purchasing behaviour.

1. Trust and Relatability

Gen Z is well known for its skepticism towards conventional advertising. The generation is looking for authenticity and social media influencers often fill this gap. Unlike traditional celebrities, influencers are closer to their followers through various social media, moreover influencers have an ability to influence customer's consumer behaviour, hence they appear more relatable and trustworthy. The content that they create is more genuine and personal, which reverberates with the desire of Gen Z because of transparency and honest review from brands.

Content Creation: Influencers on sites such as Instagram, YouTube, and TikTok share their real-life experience and their related struggles and successes. This makes Gen Z trust their product recommendations, as they feel more connected with people.

2. Peer Influence and Social Proof

User-Generated Content: Gen Z values reviews of peers and influencers because they feel it is more reliable. This makes consumers feel like their review is more genuine and not as an advertisement for a product..

“Likes” and Shares: The view of a product on social platforms (through likes, shares, comments, etc.) acts as a form of approval of other customers. Higher engagement for products in social media reflects how attractive the product is, and higher engagement towards a product makes it trending. The concept trend has an upper hand in Gen Z’s purchase decision making.

3. FOMO (Fear Of Missing Out)

Social media creates a constant flow of trends, before a trend gets outdated something else becomes trending and for Gen Z, this can lead to a sense of urgency to be part of the latest trend. In this case influencers play a significant role in creating this sense of FOMO by showcasing new products to viewers. This makes them follow the trend.

Trendsetting: Influencers often introduce Gen Z to new products, fashion styles and lifestyle changes that creates an impact among them.

4. Personalized and Interactive Marketing

Social media platforms provide a unique opportunity to target advertising in an extremely hyper-specific way thanks to the collection of data. Influencers tend to promote products that are within the same brand as they are, making it easy for Gen Z to shop based on their interests. This makes their decision making easier.

Direct Engagement: Influencers try to engage directly with their followers through comments, live videos, and Q&A sessions frequently. Though interactions aren’t face to face, these interactions make Gen Z feel involved in the process as if their opinions and preferences matter. Such things matter because it feels more like a conversation rather than a commercial transaction.

5. Convenience of Shopping through Social Media

The facility of finding, researching, and purchasing the product all within the same platform reduces friction and makes it easier for Gen Z to act on their impulses.

In-App Shopping: This generation can tap on a post (finding), watch a video (researching), and make a purchase all without leaving the app. This seamless shopping experience reduces the effort needed to buy products, making it more likely that they will make impulse purchases based on influencer recommendations.

BUSINESS ADAPTATIONS TO GEN Z TRENDS

Businesses are shifting to meet customer's expectations by adopting sustainable practices, creating personalized experiences and developing digital platforms, integrating technology in retail and adopting flexible work practices. Many businesses have started to involve themselves in virtual shopping, influencer marketing, and social commerce to give more personalized experience. To remain competitive in the market and effectively reach Gen Z customers, businesses need to make key adjustments in how they operate and engage with consumers.

Here is how businesses are adapting:

1. Mobile Optimization and E-commerce

Gen Z gives higher priority for their gadgets, they use smartphones for browsing, analysing, shopping, and interacting with brands. Businesses must come up with mobile-friendly websites, apps, and personalized experiences to meet the needs of this generation.

Responsive Websites and Apps: Businesses must ensure that their websites are optimized for mobile devices, offering seamless navigation and fast loading times to avoid losing potential customers. **E-commerce platforms like ASOS, Amazon and Zara** have mobile apps that provide a smooth shopping experience, from product discovery to purchase. **In-App Shopping:** Many businesses have integrated shopping features directly into social media platforms (e.g., Instagram, TikTok), allowing Gen Z to purchase products without leaving the platform. This social commerce enables a more convenient and frictionless shopping experience.

2. Presence on Social Media

Content Creation for Social Media: Brands are adopting short-form video formats (e.g., TikTok and Instagram Reels) to engage Gen Z, as they prefer dynamic, entertaining, and visually engaging content. This includes behind-the-scenes footage, product demos, or humorous clips that feel more organic and authentic.

Influencer Collaborations: Influencer marketing has become a vital strategy for businesses to reach Gen Z. Since Gen Z values authenticity over traditional advertising, partnering with influencers who resonate with their audience helps brands build credibility. Influencers often promote products in a way that feels more like personal recommendations than corporate endorsements.

3. Interactive and Engaging Experiences

Gen Z is known for its preference for interactive and immersive experiences rather than passive consumption of content. Businesses are adapting by creating opportunities for engagement.

Polls, Quizzes, and Challenges: Brands use interactive content such as polls, quizzes, or viral challenges (especially on platforms like TikTok) to encourage Gen Z to participate and engage with their products. **Community and Involvement Content – examples:** This form of content aims to build community and engagement around the brand and its values. For example, **AR Experiences in Augmented Reality (AR):** Some companies are experimenting with AR to improve product discovery and purchase. For example, beauty brands like Sephora and L'Oréal use AR to offer virtual try-on and let Gen Z consumers experience a product before buying.

4. Personalization and Data-Driven Marketing

Gen Z has grown accustomed to personalized experiences and expects brands to use data to deliver relevant content, offers, and product recommendations.

Tailored Content and Ads: Businesses leverage big data and machine learning to deliver personalized advertisements and product recommendations. Spotify, Amazon, and similar platforms utilize their own algorithms to recommend content or products based on Gen Z's preferences and browsing habits, as well as past purchases. **Email and SMS Marketing:** By tracking Gen Z's behavior with the help of advanced tools, businesses can send personalized emails or SMS offers, guaranteeing that promotions and product recommendations meet the interests of Gen Z.

5. Social Responsibility and Ethical Consumerism

Gen Z is highly attuned to social, environmental, and political issues. They expect businesses to operate with integrity and align with their values. Brands need to adopt purpose-driven marketing to resonate with this generation.

Sustainability Initiatives: Gen Z prioritizes sustainability, so businesses are focusing on eco-friendly products, packaging, and ethical sourcing. Brands like Patagonia and Allbirds have capitalized on this by marketing their environmental initiatives and promoting eco-conscious products.

Social Justice and Inclusivity: Businesses are also adapting by embracing inclusivity, diversity, and social justice. Brands that champion equal rights and show tangible actions toward these causes are more likely to earn the trust of Gen Z.

6. Real-Time Engagement and Customer Service

Gen Z expects immediate responses when interacting with brands. They value fast, efficient communication through digital channels. **24/7 Customer Support:** Many businesses now offer chatbots, and social media customer service to engage with Gen Z. Businesses have adapted by providing quick responses to customer queries via Twitter, Instagram DMs, or Facebook Messenger.

FUTURE IMPLICATIONS FOR COMMERCE

Gen Z's focus on tech, sustainability, and authenticity is transforming commerce. Businesses must embrace innovations like AR, VR, AI, and other such technologies prioritizing eco-friendly practices and adopting hybrid shopping models. Their demand for personalized experience and reliance on social media will continue to drive marketing strategies. Companies also need to invest in data security and privacy. It will help gain the trust of this generation. Generation Z puts emphasis on values such as sustainability and authenticity. These values have a great impact on their buying. It forms the trends in commerce.

1. The **Core value** of Generation Z is sustainability, with most of them valuing environmentally friendly products and brands, which have taken it upon themselves to reduce their carbon footprint.
2. Generation Z is attracted to **eco-conscious** products such as sustainable textiles, recycled materials, and waste-free packaging, which are meant to save the planet.

3. Brands that promote **green initiatives** and environmental responsibility gain Gen Z's loyalty, as they are less likely to support companies that harm the environment.
4. **Transparency** about sourcing, production, and supply chains is crucial; Gen Z wants to know where products come from and how they are made.
5. **Authenticity** is equally important; Gen Z values genuine, transparent brand messages over polished, inauthentic marketing tactics.
6. **Influencer marketing** is effective when influencers authentically support brands that align with Gen Z's values.

Businesses must adapt by incorporating **sustainability** into their core values and by authentically engaging with Gen Z through genuine commitments.

SUGGESTION

To engage Gen Z, businesses should use technology like AI and AR for personalized experiences, focus on sustainability, leverage social media, and adopt hybrid shopping models. Prioritizing transparency, quick service, and data security while aligning with their values ensures long-term relevance.

CONCLUSION

Social media influencers have an enormous influence on the purchasing decisions and lifestyle choices of Generation Z. Building on trust, relatability, personalized marketing, and social platform integration, Gen Z is revolutionizing consumer engagement in businesses. Brands that understand and cater to Gen Z's desire for authenticity, transparency, and value-driven choices can effectively tap into this influential demographic and drive their purchasing decisions. It's a fact to be accepted that Gen Z is reshaping

Gen Z's digital-first approach by embracing mobile optimization, personalized marketing, influencer partnerships, social commerce, and interactive content is adapting to businesses. Additionally, they are aligning their values with Gen Z's ethical preferences and offering convenient digital payment options.

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VARIOUS REMOVAL TECHNOLOGY OF MICROPLASTICS IN DRINKING WATER : A REVIEW

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ABSTRACT

Microplastics (MPs) are recognized as contaminants commonly present in various water sources. These are typically defined as plastic particles measuring less than 5 millimeters in size. The plastics that are smaller than 100 nm or 1000 nm are the smallest percentage of MPs that are classified as nanoplastics (NPs); the lower size limit is a matter of scientific discussion. It is believed that human exposure to MPs mostly happens through inhalation and food and drink consumption. When consumed, microplastics may include contaminants, diseases, and hazardous substances that could be damaging the individual's health. Research has indicated possible connections between the ingestion of microplastics and problems such as toxicity, inflammation, and even changes of hormones. The aim of this review paper is to present the existing understanding of the applications of various technologies. and methods of removing microplastics in drinking water. By using these methods, can significantly reduce the presence of microplastics in drinking water. The current treatment methods must be improved and future studies should focus on affordable and can significantly reduce the presence of microplastics in drinking water at home easily

KEYWORDS: *Microplastics, Drinking water treatment, Nanoplastics, Removal technology.*

1. INTRODUCTION

Microplastics are highly persistent contaminants that may be harmful to organisms or ecosystems. They are small plastic pieces less than 5 mm that are intentionally produced to be used in consumer products (e.g., exfoliants in cosmetics) and in activities as abrasives (e.g., air blasting) or secondary microplastics that result from the fragmentation of larger objects. (Geyer et al., 2017b). Microplastics have been found in almost all environmental aquatic matrices, including freshwater, saltwater, and sediments, according to recent studies. The food chain now contains microplastics, as was to be expected. Shellfish, fish, and bottled water are a few examples. A 2018 early study has demonstrated that humans consume microplastics. (M. Smith et al., 2018)

In order to evaluate the hazards of microplastic exposure and look into potential negative impacts on human health, the WHO requested additional research in 2019. A lot of research has been done on beverages in addition to food, particularly on tap water because it is a common beverage.

Freshwater systems are known to accumulate numerous microplastic particles and fibers; however, compared to seawater, monitoring efforts for microplastics in freshwater environments have been relatively limited. These freshwater systems can serve as sources (e.g., wastewater treatment plants), transport pathways (e.g., rivers), and sinks (e.g., isolated lakes) for microplastics, with notable differences from those found in seawater due to significant variations in their quantities. Additionally, the characteristics of microplastics in freshwater are highly diverse. **(Eerkes-Medrano et al., 2015)**

For instance, microplastics in sewage are often heavily contaminated with organic matter and appear as relatively large fragments, whereas those in clean freshwater are nearly free of organic content and are barely visible to the naked eye. Moreover, studies have shown that freshwater lakes and rivers near densely populated areas tend to contain higher levels of microplastics. A further notable limitation in research on microplastics in freshwater systems is the use of small sample sizes **(J. Li et al., 2017)**

1.1 OBJECTIVE OF STUDY

The goal of this review paper is to present the existing knowledge on various techniques for removing microplastics from drinking water.

- Primary source – results and reports obtained from original studies.
- Secondary source – a research findings and summary from other sources or studies.
- Conceptual or theoretical source – Understanding or analysing the concepts and theories.

2. REVIEW OF LITERATURE

2.1 REMOVING MICROPLASTICS BY DRINKING WATER TREATMENT PLANTS (DWTP)

The overall objective of drinking water treatment plants is to raise the quality of the water to a level suitable for human consumption. Common drinking water treatment aims to guarantee human safety by eliminating physical, chemical, and biological impurities, including microorganisms, heavy metals, and suspended particles. As a result, DWTPs are essential in reducing the flow of microplastics from raw water into drinking water. **(Acarer, 2023)**

2.1.1 COAGULATION

In DWTPs, coagulants are frequently used to filter out contaminants from water. Chemical coagulants like iron salts ($\text{FeCl}_3 \cdot 9\text{H}_2\text{O}$ and $\text{Fe}_2(\text{SO}_4)_3 \cdot 18\text{H}_2\text{O}$) and aluminium salts ($\text{AlCl}_3 \cdot 6\text{H}_2\text{O}$, $\text{Al}_2(\text{SO}_4)_3 \cdot 18\text{H}_2\text{O}$, and $\text{KAl}(\text{SO}_4)_2 \cdot 12\text{H}_2\text{O}$) are commonly employed because of their excellent effectiveness and minimal investment requirements. A specific quantity of coagulants is added to create a flocculent substance that will encapsulate suspended particles and settle at the bottom of the pond, depending on the characteristics of the water. **(Shen et al., 2020b) (Cheng et al., 2021)**

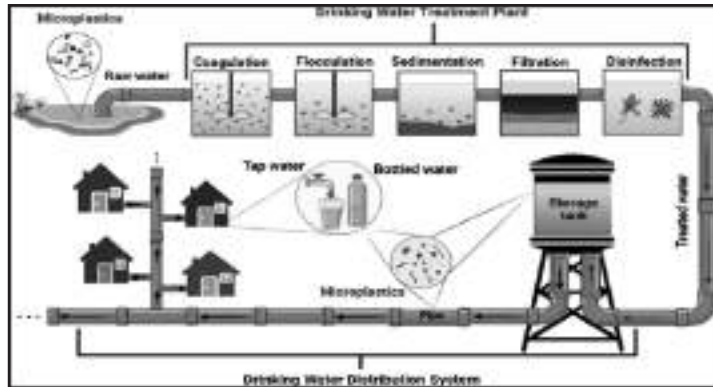


FIG 1 : Removing Microplastics By DWTP (Acarer, 2023)

2.1.2 SAND FILTRATION REMOVAL

Rapid gravity filters (RGFs) can enhance the hygienic and safety of drinking water by capturing suspended and colloidal particles. When the particle to media diameter ratio is higher than 0.15, the empty spaces in the filter can strain the particles. In this case, particles having a diameter of 75 μm on the filter surface will be strained by the 0.5mm effective media diameter.



FIG 2 : Removing Microplastics By Sand Filtration Removal (Y. Xu et al., 2015)

Research from wastewater filtration plants has shown that MPs are removed at high levels. In this case, in a tertiary WWTP, an RGF was shown to have a 97.1% removal effectiveness of MPs (> 20 μm) from secondary effluent, where MPs were identified using FTIR and a stereomicroscope. Lower removal has been noted for smaller MPs in the case of DWTPs. For example, in DWTP water treated by coagulation/sedimentation, the removal effectiveness of MPs (> 1 μm) by sand filtration ranged from 29.0 to 44.4%. In this particular case, the sand filter eliminated nearly all MPs larger than 10 μm . (Y. Li et al., 2020)

2.2 REMOVING MICROPLASTICS BY WASTE WATER TREATMENT PLANTS (WWTP)

The wastewater treatment plants (WWTPs) that are able to hold the microplastics (MPs) that come from households when people wash synthetic garments with MP-containing detergents and cosmetics and keep MPs out of natural aquatic ecosystems. Therefore, when it comes to the removal of MP, both of these kinds of facilities require attention (Sol et al., 2021).

Generally, it was reported that MP removal rates at WWTPs might reach 98–99.9%. But considering the huge quantities of effluents emitted, traditional WWTPs may still be a major source of MPs even with their high removal efficiency. The management of waste from WWTPs should also receive consideration. MPs can be released back into the environment if sludge that may contain significant concentrations of MPs is utilised, such as in agriculture.

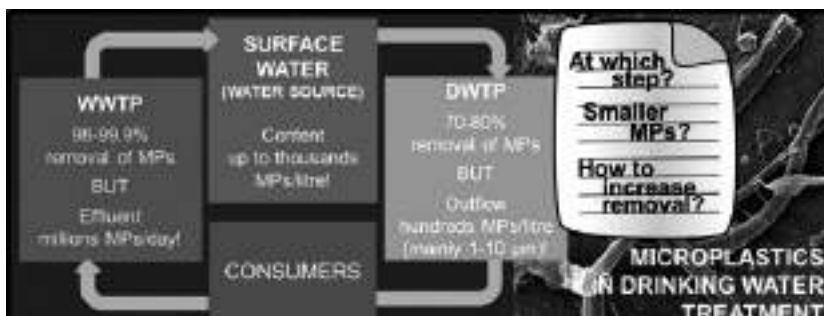


FIG 3 : Removing Microplastics By WWTP (Novotna et al., 2019)

2.3 ADSORPTION REMOVAL

The adsorption method relies on the interaction between microplastics (MPs) and adsorbents. This approach is particularly effective in removing nanoplastics (NPs) and small MPs, especially those smaller than 10 µm. The adsorption mechanism involves electrostatic interactions, hydrogen bonding, and π - π interactions.

During the adsorption process, particulate adsorbents and polystyrene (PS) were stirred and mixed in a liquid medium, followed by centrifugation to separate the combined materials and obtain a purified supernatant. Furthermore, bio- based adsorbents such as aerogels, biochar, and magnetic biochar have been employed for MP removal from water, achieving varying levels of efficiency. (Mulindwa et al., 2024)

2.4 MAGNETIC REMOVAL

Large specific surface magnetic nanoparticles were utilised in this removal process as adsorbents to combine with MPs. Once combined, magnetised MPs can be rapidly and readily removed from water using magnetic force. There are several different kinds of processes involved in the magnetisation action of MPs. The significant hydrophobicity of MPs played a major role in the adsorption of magnetic carbon nanotubes (M-CNTs) by PE. The combination of π - π electron interaction, complexation, electrostatic interaction, and hydrogen-bond interaction led to the adsorption of M-CNTs by polyamide (PA).

Additionally, superparamagnetization, which induces desorption and regeneration of magnetic materials, typically requires magnetic materials. Furthermore, it is typically required to add a significant amount of magnetic adsorbents in order to guarantee that the amount of adsorbents exceeds the amount of MPs in water. Therefore, the issue of how to completely remove added magnetic elements following treatment exists. In the laboratory, centrifugation was normally used to do this. (Bakhteeva et al., 2023)

2.5 BIODEGRADATION APPROACH

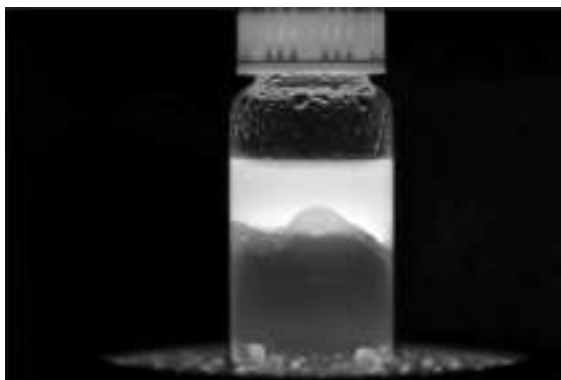
One affordable and environmentally friendly method for eliminating of MPs is biodegradation. While the majority of MPs are not biodegradable, certain unique microbes and insects have been shown to break down traditional plastic. Plastic-degradable bacteria and fungi have been successfully isolated and cultivated by researchers from sand, wastewater, and sludge; some

of these materials came from the intestines of land insects. Extracellular enzymes secreted by microbes that colonise MP surfaces are essential for the depolymerisation of MPs.

Previous research indicates that the prolonged cultivation of a single species of bacteria frequently results in the accumulation of several hazardous chemicals in the growth substrate, which in turn inhibits the bacteria's ability to proliferate and grow, ultimately lowering the MPs' degradation efficiency. As a result, a stable microbial community made up of different kinds of bacteria is an effective method for MP breakdown. Certain bacteria may use the hazardous products of others as growth substrates during this process, reducing the effects on the culture substrate. Additionally, various kinds of bacteria may exhibit mutually beneficial and cooperative effects, leading to an enrichment of dominant plastic-degradable species and increased degradation efficiency. (Cai et al., 2023)

2.6 NEW TECHNIQUE REMOVES MORE THAN 98% OF NANOPLASTICS FROM WATER

Researchers at the University of Missouri have developed a possibly safe and sustainable method to remove small pollutants from water in order to prevent microplastics and nanoplastics from affecting our brains and bodies. The researchers have demonstrated that they can eliminate around 98% of nanoscopic polystyrene beads from both fresh and salt water by using natural liquid substances with low toxicity.



**FIG 4 : The solvent (glowing orange) floating on the surface of water
(Gary Baker/University of Missouri)**

Similar to oil, the solvent that the researchers developed floats on the water's surface. But after just a little combining, the liquid begins to dissolve tiny plastic particles in the water and raises them to the surface. With the help of a pipette, the University of Missouri (Mizzou) team was able to extract almost all of the nanoplastic beads from their polluted water samples. The process was able to recover 99.8% of all polystyrene contaminants from saltwater. According to Mizzou researchers, the proof of concept presents an affordable and possibly "sustainable solution to the nanoplastics problem." With more investigation, the method might potentially work well for eliminating other contaminants from water, such as permanent chemicals. (Ishtaweera et al., 2024)

3. CONCLUSION

Explores methods for removing microplastics from drinking water with the aim to provide research ideas on microplastics in drinking water treatment. There is currently a lack of research on the removal of microplastics from drinking water treatment processes. There are concerns regarding whether conventional processing technologies can effectively remove microplastics with the right adjustments or if new technologies must be created because conventional technologies are not made to do so. Pretreatments already in use that reduce the quantity of microplastics in water need to be modified to protect the drinking water treatment system. To address the issues posed by microplastics and guarantee that the treatment process works according to plan, the current treatment methods must be improved and future studies should focus on affordable and can significantly reduce the presence of microplastics in drinking water at home easily.

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A STUDY ON ALIGNING THE HUMAN RESOURCES IN INDUSTRIES TOWARDS SUSTAINABLE DEVELOPMENT GOALS

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ABSTRACT

The United Nations organization took initiative to add more targets and sub targets and replace the millennium development with Sustainable development goals at the Rio de Janeiro conference in the year 2012 to work on gender inequality, poverty, environment, political, economic challenges, health, education, inequality etc. The vision of 2030 achieving sustainable development Goals to build a better world for living has given roles and responsibility for every human being as a citizen of mother earth. Here in industries HR plays a crucial role with humans. To achieve the vision HR can implicate the goals with sub targets to humans in the organization. The study focuses to study the level of implications of SDG in the organization to humans through HR practice.

The study employs a quantitative research method conducted in manufacturing units in Chennai. The researcher adopted a convenience sampling method, a non-probability sampling technique. The study concludes that while organizations have adopted some SDG principles through HR practices, improvements are needed in gender equality, sustainability and employee welfare programs.

KEYWORDS: *Sustainable development goals, Human resource, Human resource management.*

I. INTRODUCTION

The United Nations countries adopted Sustainable Development goals in 2015 which set target year 2030. It framed 17 goals that is No Poverty, Zero Hunger, Good Health and Well-being, Quality Education, Gender Equality, Clean Water and Sanitation, Affordable and Clean Energy, Decent Work and Economic Growth, Industry, Innovation and Infrastructure, Reduced Inequality, Sustainable Cities and Communities, Responsible Consumption and Production, Climate Action, Life Below Water, Life on Land, Peace and Justice Strong Institutions, Partnerships to achieve the

Goal with 169 targets(un.org). In 2020 and 2021, approximately 14.9 million people were died due to COVID-19 (un.org). It created huge impact on health systems and society. Providing Health Care Programs is essential. In 2020, the global prevalence of anxiety and depression increased by an estimated upto 25%, with young people and women are most affected. Providing quality education for all is essential to create a peaceful and better world. Education gives people the knowledge and skills they need to stay healthy, seek jobs and promote tolerance. Gender equality is not only a fundamental human right, but a necessary foundation for a prosperous, peaceful and sustainable world. The world is on track to achieve gender equality by 2030. Violence against women remains indigenous. Many people still trail men in securing the decision-making positions they deserve. Engagement and bold action are needed to accelerate the progress, including through the up gradation of policies, laws, budgets and institutions that promote gender equality. Reducing inequalities is necessary to achieve the Sustainable Development Goals. Therefore, SDG goals calls every citizen to work together to build a better world, but it is possible only through working collectively across borders and disciplines and with community partners that these goals might be achieved..

Human Resources and Sustainable Development Goals

The role of HR is important in organization from employee entry to relieving. It is the continuous process which contributes for the effective and smooth functioning of the industries. Human resources management is the part of an organization that is in charge of finding, cross check, hiring, and training job candidates, as well as running benefit programs for employees. HR is an important part of helping businesses adapt to a quickly changing business environment. SDGs and HR practices are connected through a common factor ‘Human Resource’, as their presence and actions have a direct influence in the workplace. The administrative responsibilities of an organization are planned, supervised, and coordinated by human resource managers. They act as a bridge between management and staff and discuss strategic planning with top executives. So some of the goals can be initiated in companies for human resources through HR practices to achieve these goals soon. This will pay way for sustainable health, prosperity and peaceful life for all living being. The study focuses on industries which tries to align the human resources with sustainable development goals and aims to give suggestions for the best practices for implementing human resource practices with sustainable development goals.

II. REVIEW OF LITERATURE

Caerio, S., Leal Filho, W., Jabbour, C. J. C., & Azeiteiro, U. M. (2020). Benchmarking tools for education for sustainable development in higher education institutions: Critical analysis and case studies. When it comes to putting Education for Sustainable Development (ESD) into reality, Higher Education Institutions (HEIs) are essential. This implementation ought to be carried out in various ways in accordance with a comprehensive and whole- school strategy. To evaluate this integrated strategy, several instruments have been created and modified. The purpose of this study is to evaluate the current methods for benchmarking and evaluating the implementation of ESDs critically and to explore how well they work in two case studies: Universidade Aberta in Portugal and Universidad Autónoma de Madrid in Spain. The study aims to advance the effectiveness of these tools in improving HEIs' sustainability performance and promoting them as change agents.

Tooranloo, H. S., Saghafi, F., & Azadi, H. (2017). Identifying factors affecting the sustainability of human resource management in organizations. The article explore the factors influencing the sustainability of human resource management (HRM) in organizations. They highlight that the concept of sustainability has evolved as organizations focus more on community, environment, and the impact of environmental factors. While HRM plays a role in sustainability, there is limited research on the relationship between sustainability and HRM. A key challenge is the difficulty in identifying the factors that affect HRM sustainability in businesses.

III. RESEARCH METHODOLOGY

GENERAL OBJECTIVE

To Study on Aligning the Human Resource in industries towards Sustainable Development Goals.

SPECIFIC OBJECTIVE

1. To assess the gender equality.
2. To analyses company's role in promoting green environment and eco-friendly.
3. To find company's framework about reducing inequality.
4. To examine the safe working conditions.
5. To find the company's good health and well-being environment.
6. To study Strategic implementation and implication of SDG for HRM.
7. To suggest the best SDG practice through HRM.

STATEMENT OF THE PROBLEM

An increasing variety of businesses are seeing the value of the Sustainable Development Goals (SDGs) as a framework for tackling urgent environmental, social, and economic issues in the quickly evolving global landscape of today. The successful alignment of human resource (HR) practices within companies with the Sustainable Development Goals (SDGs) to promote sustainable results is still largely unknown, nevertheless. By addressing these research questions, the study hopes to shed light on how HR influences sustainable development within industries and provide useful advice for practitioners, policymakers, and organizational leaders on how to better align HR practices with SDGs, which will ultimately help the world achieve its sustainable development goals.

RESEARCH DESIGN

Quantitative Research method as it has provided research data from collecting, analysing, and interpreting. The design used in this study is Descriptive research design.

FIELD OF STUDY - The Researcher chose to do data collection in manufacturing units in Chennai.

SAMPLING METHOD

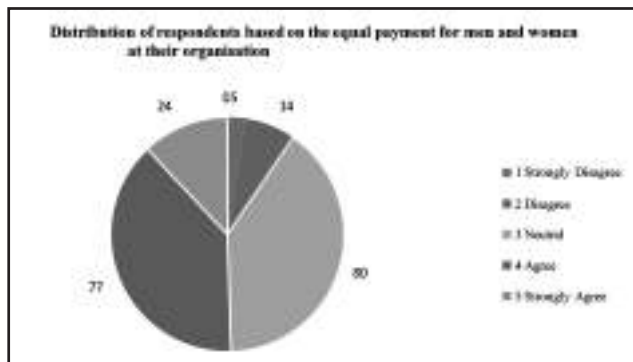
The researcher used Convenience sampling which is a non-probability sampling method where units are selected for inclusion in the sample because they are the easiest for the researcher to access.

SIZE OF THE SAMPLE: The size of the sample is 200.

TOOLS FOR DATA COLLECTING: Primary method - Questionnaire.

IV. DATA ANALYSIS AND INTERPRETATIONS

Figure. 1. Distribution of respondents based on the equal payment for men and women at their organisation



Inference: From above table it is inferred that 40% of respondents have neutral opinion, 38.5% of respondents have agreed that their organisation pays for men and women equally for their work, 7% have disagreed the statement, 12% of respondents strongly agreed to the statement and 2.5% of respondents strongly disagreed the statement.

Table. 1. Distribution of respondents based on caste discrimination in their organization

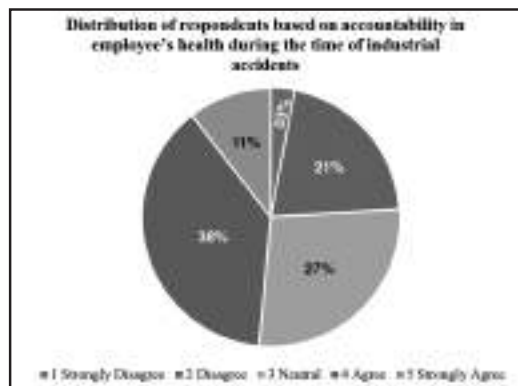
S.No	Statement	Frequency	Percentage
1	Strongly Disagree	76	38
2	Disagree	48	24
3	Neutral	35	17.5
4	Agree	34	17
5	Strongly Agree	7	3.5
	Total	200	100

Inference: From above table it is inferred that 38% of respondents have Strongly disagree opinion on the statement, 24% of respondents have disagreed that they felt discrimination in their organization, 17.5% have partially agree the statement, 17% of respondents agreed to the statement and 3.5% of respondents strongly agreed the statement.

Table. 2. Distribution of respondents based on the provision of safety gears in their organisation

S.No	Statement	Frequency	Percentage
1	Strongly Disagree	9	4.5
2	Disagree	18	9
3	Neutral	66	33
4	Agree	76	38
5	Strongly Agree	31	15.5
	Total	200	100

Inference: From above table it is inferred that 38% of respondents have agreed that their organisation provide safety gears, 33% of respondents have neutral opinion, 15.5% of respondents have strongly agreed the statement, 9% of respondents disagreed the statement and 4.5% of respondents strongly disagreed the statement.

Figure. 2. Distribution of respondents based on accountability in employee's health during the time of industrial accidents

Inference: From above table it is inferred that 38% of respondents have agreed that their organisation take accountability in employee's health during the time of industrial accidents, 27.5% of respondents have neutral opinion on the statement, 21% of respondents have disagreed the statement, 10.5% of respondents strongly agreed the statement and 3% of respondents strongly agreed the statement.

Table. 3. Distribution of respondents based on provision of opportunities for educational up gradation

S.No	Statement	Frequency	Percentage
1	Strongly Disagree	13	6.5
2	Disagree	40	20
3	Neutral	61	30.5
4	Agree	69	34.5
5	Strongly Agree	17	8.5
	Total	200	100

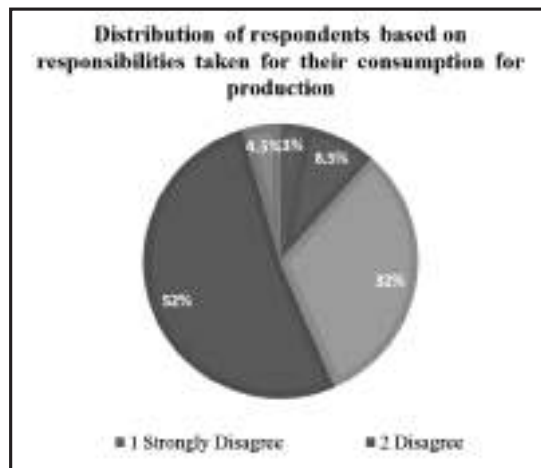
Inference: From above table it is inferred that 34.5% of respondents have agreed that their organisation provide opportunities for education upgradation, 30.5% of respondents have neutral opinion on the statement, 20% of respondents have disagreed the statement, 8.5% of respondents strongly agreed the statement and 6.5% of respondents strongly agreed the statement.

Table. 4. Distribution of respondents based on the classification of dust bins for waste disposal

S.No	Statement	Frequency	Percentage
1	Strongly Disagree	11	5.5
2	Disagree	30	15
3	Neutral	64	32
4	Agree	77	38.5
5	Strongly Agree	18	9
	Total	200	100

Inference: From above table it is inferred that 38.5% of respondents have agreed that their organization have separate dust bins to dispose the waste, 32% of respondents have neutral opinion on the statement, 15% of respondents have disagreed the statement, 5.5% of respondents strongly disagreed the statement and 9% of respondents strongly agreed the statement.

Figure. 3. Distribution of respondents based on responsibilities taken for their consumption for production



Inference: From above table it is inferred that 52% of respondents have agreed that their organization take responsibility for its consumption for production, 32% of respondents have neutral opinion on the statement, 8.5% of respondents have disagreed the statement, 4.5% of respondents strongly agreed the statement and 3% of respondents strongly disagreed the statement.

V. FINDINGS

Demographic details:

One third of i.e., 34.5% respondents were in age between 41-50, 51% respondents were from urban location, 70.5% respondents were married, Less than half of i.e., 47% of respondents completed a Diploma, Half of i.e., 58% respondents were getting salary above 20,000.

Gender equality & Workplace Inclusivity:

One fourth of i.e., 31.5% respondents have Neutral opinion on having women in higher position in their organization, 33% respondents say their organization culture is safe for women. 80% respondents have neutral opinion on men and women are paid equally for their work. 35 % respondents agree that their organization provide gender sensitization program. More than one fourth of i.e., 31% respondents have neutral opinion on felt partiality in their organization with their gender regarding promotion. Majority of 38% respondents have strongly disagreed that they have felt discrimination based on caste in their organization.

Employee welfare & Working Conditions:

Half of the respondents disagree that their organization provide education scholarship for employee children's. 38% respondents agree that their organization provide safety gears. 35% respondents have neutral opinion that their organization provide decent working condition. 46% respondents agree that their organization take statutory test to the employees. 38% respondents agree that their organization take accountable in employees' health during the time of industrial accidents. More than one third of respondents agree that organization provide opportunities for education upgradation.

Workplace safety & Employee benefits:

More than one fourth of i.e., 32% respondents agree that their organization provide proper induction training. More than one third of i.e., 38% respondents have neutral opinion that their organization conduct safety committee meeting on regular intervals to ensure the safety of the employees. More than one third of i.e., 37% respondents agree that their organization conduct mock drills training to ensure the safety working condition of the employee

Environment Sustainability Initiatives:

More than one third of respondents have neutral opinion that their organization provide ecofriendly products. 39% respondents agree that their organization have separate classified dust bins to dispose the waste. 36% respondents agree that their organization take initiative to protect green environment. More than half of the respondents agree that their organization take responsibility for its consumption for production. 45% respondents have neutral opinion that their organization provide zero food wastage strategies in the canteen. 43% respondents have neutral opinion that their organization provide clean and sanitized restroom. 36% respondents disagree that their organization provide initiative to involve the employees in the CSR activities engaged with green environment.

VI. SUGGESTIONS

1. Awareness should be created to implicate SDG goals in the organization through HR practices.
2. Gender sensation program should be done.
3. Mandatory provision should be brought to avoid caste-based discrimination.
4. Support to education facilities by the organization should be mandated with some qualification to employee.
5. Government should provide more workshops to produce eco-friendly products.
6. Recognition should be provided by the government for an organization which shows accountability.
7. Awareness of food wastage should be done.
8. Mandated provision should be brought to involve the employee in the environment related CSR activities to bring them knowledge about importance of environment.
9. Every organization should ensure the employee met his basic needs.

VII. CONCLUSION

As the vision 2030 of SDG to build a better world for living has given roles and responsibility for every human being as a citizen of mother earth. Every country individually plays different strategies to accomplish it. To implicate SDG to humans in every organization HR plays a crucial role in it. Every organization plays responsible and aligns themselves with the vision of government and contributes for the betterment of society which is identical from the field study and survey done. For more effective implications suggestions are made to achieve the vision easier.

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BLOCKCHAIN APPLICATIONS IN SUPPLY CHAIN MANAGEMENT

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ABSTRACT

This study explores how blockchain technology can intimate common supply chain issues like fraud, slowness, and item location uncertainty. Blockchain allows for real-time product tracking through a distributed, immutable system. This provides you with the location of products and increases the transparency of the entire supply chain.

Critical uses encompass traceability of goods, inventory management, and detecting false claims which can improve supply chain efficiency and reliability. Beyond the envisioned advantage, scalability problems, implementation expense, and regulatory risks pose danger to blockchain uptake. This also looks at what the future might hold for blockchain in supply chains, for instance, how it can integrate with IoT devices as well as automate through smart contracts. The research proves that blockchain technology can be the solution to supply chain management problems, but there are main challenges to its large-scale.

KEYWORDS: *Future of Blockchain, supply Chain Management, Transparency, Traceability, Fraud Prevention, Smart Contracts, Blockchain Challenges.*

INTRODUCTION

This section will demonstrate how supply chain management can be improved by using blockchain technology. Our analysis will cover various blockchain types while discussing their strengths and obstacles together with approaches to leverage benefits and address these challenges. Blockchain technology records transactions across numerous computers securely and operates independently of any central authority. Supply chain management (SCM) involves the complete process of transferring goods and services as well as information from beginning to end by buying products, storing them, manufacturing them and delivering them.

OBJECTIVES

The objectives of the study is to:

1. The purpose of this part is to illustrate blockchain's critical role in enhancing supply chain operations.

2. This study aims to recognize the difficulties that arise when blockchain technology is applied to supply chain systems.

****PRINCIPLES OF BLOCKCHAIN IN SUPPLY CHAIN** -**

****Decentralization:**

Blockchain operates without central control to enable direct relationships between parties and thus promotes both independence and cooperation.

Participants use consensus mechanisms to validate the accuracy of transaction data collectively.

Smart Contracts represent self-executing contracts that activate specified actions once predefined conditions are fulfilled and minimize manual verifications.



Figure 1: Benefits of Blockchain in SCM

BLOCKCHAIN ADOPTION: THE UPS AND DOWNS

Cost:

Starting out with blockchain can be pretty pricey, especially if you're a small business.

Getting it to work smoothly with what you've already got:

It can be tricky to get blockchain to fit nicely into your existing supply chain systems.

Rules are still changing: The regulations around blockchain are still developing, so companies might find themselves a bit lost on where they stand.

Scalability:

If blockchain is handling thousands of transactions, it might slow down. This isn't great for large supply chains.

SOLVING THE ISSUES:

- Speed things up
- Cut down costs
- Make it easier to integrate
- Get the regulations right

TYPES OF BLOCKCHAIN FOR SUPPLY CHAIN:

1. Private:

This can be used by specific individuals, like people within the same company.

2. Consortium:

A mix where multiple companies work together to run the blockchain.

3. Public:

Anyone can jump in and use it.

BLOCKCHAIN'S ADVANTAGES TO THE SUPPLY CHAIN

- **Transparency:**

Giving real-time access to the same information, blockchain boosts accountability and trust.

- **Security:**

Blockchain uses cryptographic algorithms to keep information secure and unchanged.

- **Efficiency:**

It makes transactions faster, cuts down paperwork, and automates processes.

- **Traceability:**

It allows tracking of goods from raw materials to final delivery, which helps with product safety and quality control.

HOW BLOCKCHAIN IS USED IN SUPPLY CHAINS TODAY:

1. Medicine:

Counterfeit drugs are a huge problem in the pharmaceutical industry. Blockchain can help! Projects like Medi Ledger are using blockchain to track drugs making sure people can verify if a drug is genuine in real time. This keeps fake drugs away from patients.

2. Fancy Items:

Blockchain helps ensure that high-end items like watches and jewelry are authentic. For example, Aurasens uses it to trace the origins of these items, making sure customers get what they pay for and fighting against counterfeit products.

3. Automobiles:

Companies like BMW are using blockchain to keep track of car parts during manufacturing. This helps improve quality, meet safety regulations, and reduce issues.

4. Shops:

Blockchain is increasingly being used in retail stores, especially for inventory records and ensuring items are genuine. Walmart uses blockchain for traceability of their product sources, easing buyers' worries about authenticity.

THE FUTURE OF BLOCKCHAIN IN SUPPLY CHAINS

It looks like blockchain has a bright future in supply chains, with exciting developments on the horizon.

1. IoT Integration:

Connecting blockchain with IoT could make supply chains more transparent and easier to manage. For instance, IoT devices could pull real-time data on products' locations and conditions, securely storing all that on a blockchain. This would make tracing goods super straightforward.

2. Smart Contract Automation:

Smart contracts have the potential to supply chain automation for the better. They could cut out the middleman and simplify ordering, payments, and inventory tracking. Just set the rules, and let the contracts handle the rest.

3. Working Together:

As more businesses jump on the blockchain bandwagon, we see various companies across the supply chain teaming up. Shared blockchain platforms make everything much more transparent, from start to finish, across different industries. This would help retailers, logistics firms, and banks work together more effectively.

4. Eco-Friendly and Ethical:

Many businesses are looking to blockchain to boost the sustainability and ethics of their sourcing, especially in fashion and electronics, where consumers care about where their products come from.

Issues like keeping up with demand, understanding prices, and navigating regulations to be tackled. Future research and improvements in blockchain should keep moving forward, especially with IoT and smart contracts. I believe blockchain will be a key player in the supply chain environment.

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A STUDY ON EFFECTIVENESS OF FACEBOOK AS A MARKETING TOOL

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ABSTRACT

In the rapidly changing virtual landscape, Facebook comes out as a vital platform for marketing, offering unique opportunities for businesses to reach and engage with a global audience. In this study, take a look at the historical development of Facebook as a marketing platform that focuses on its transformation from a social networking site to a powerful marketing platform. In conclusion, this study presents a complete overview of Facebook as a crucial marketing tool and provides valuable insights for businesses to utilize its potential.

KEYWORDS: Facebook Marketing, Brand, Awareness, Marketing Trends and advertising.

INTRODUCTION

Facebook has around 2.8 billion users as of 2023. Marketers are seeing this platform as a consequential venue for their marketing activities. This study aims to explore how businesses are using Facebook to enhance their market strategies, sales, brand visibility, engagement etc. Facebook marketing is a platform where to display the products and services to customers for sale. The brand will go for the creative way to blend the information and make the experience of the customer user-friendly and enjoyable at the same time.

OBJECTIVES:

- To identify the demographic profile of the respondents.
- To find out usage behavior of the respondents on face book
- To analyze the satisfaction of effective marketing on face book
- To provide valuable information about the brand to the customer.

REVIEW OF LITERATURE:

Arunima Rana (2016) aims to determine the purchasing patterns of Facebook users based on many characteristics, including age, gender, income, and occupation. In this study a non - probability Convenient sampling tool is adopted. Sample collected from 200 facebook users who are above 18 years. inferential analysis is used as a base for this study and SPSS tools have been used to present data into a quantitative form. The results show that people are more attracted by recommendations from people they know and trust on Facebook than by celebrity endorsements.

Alexandra Bannister et al., (2013) examines the perception and attitudes towards advertisement on Facebook which is the most popular networking site. The surveys were circulated using a non-probability judgment sampling technique to college students around the Gulf Coast region. 283 college students with active Facebook accounts in the Gulf Coast area provided the samples. It was found that all the respondents in college have a Facebook account. Less than 10% of respondents stated that they were inclined to make a purchase on the Facebook platform, while 69% of respondents stated that they disliked making purchases.

METHODOLOGY:

This study is based on descriptive and analytical in nature. In this study focused empirical study with a structured questionnaire having a five point Likert scale. A Sample was collected from 250 respondents based on the convenience sampling. This study makes use of both primary and secondary data. Questionnaires were used to gather the primary data, and websites served as the sources for the secondary data.

DATA ANALYSIS AND INTERPRETATION

Percentage Analysis:

Table 1: Demographic Profile

Factors	Category	Percentage
Gender	Female	62.6%
Age	Less than 30	53.9%
Educational Qualification	UG	47.6%
Employment status	Private employee	53.9%
Family Income	Less than RS. 300000	49.6%

- In the above table, the percentage of the respondents according to gender: Female – 62.6% of the respondents and Male – 37.3% of the respondents.
- 53.9% belongs to the age group of less than 30, 16.2% belongs to the age group of 40 – 50, 8.9% belongs to the age group of 30 - 40, 6.3% belongs to the age group of 50 – 60, 4.7% belongs to the age group of above 60.
- 47.6% of the respondents were UG, 32.1% of the respondents were PG, 12.3% of the respondents were professional, 7.9% of the respondents were others.

- 53.9% belonged to a private employee, 19.8% belonged to others category, 13.4% belonged to a public employee, 12.6% belonged to a professional employee.
- 49.6% earned less than Rs.300000, 32.5% earned between Rs.300000 – 500000, 11.1% earned between Rs.500000 – 700000, 6.8% earned above Rs.700000.

Table 2: Usage of Facebook

Factors	Category	Percentage
Duration	Less than a year	41.6%
Time spending on face book account	once a day	40%
Motivation behind joining the brand page	Friends invitation	44%
Purpose of using facebook	Exchanging views about product and services	36.5%
Consider face book for buying decision	buying decision most often	34.1%

- 41.6% were using Less than a year, 35.3% using for More than 3 years, 21% using between 1- 3 years, 1.9% of the respondents were used by others.
- 40% were spending once a day, 26.5% spending frequently within a day, 19.4% spending weekly once, 13.8% spending monthly once.
- 44% were joining for Friends invitation, 28.5% joining for brand invitation/Advertising, 19% joining for Personal research, 8.3% joining for loyalty towards the brand.
- 36.5% were used for exchanging views about product and services, 19.8% using for playing contests or games, 27.7% using for Connecting with friends, 15.8% using for other activities.
- 34.1% were makes buying decision most often, 24.6% were always makes buying decision, 23% were never makes buying decision, 18.2% were mostly makes buying decision.

Factor Analysis:

KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.882
Bartlett's Test of Sphericity	Approx. Chi-Square	2382.246
	Df	276
	Sig.	0.000

In this study Kaiser-Meyer-Olkin Measure of Sampling Adequacy value is 0.882. Bartlett's Test of Sphericity has also highly significant (since $p < .001$) which is below 0.05. hence, this study has conducted the factor analysis.

Table 3: Total variance Explained

Total variance Explained									
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.051	33.547	33.547	8.051	33.547	33.547	3.033	12.637	12.637
2	1.605	6.686	40.232	1.605	6.686	40.232	2.594	10.807	23.444
3	1.438	5.992	46.224	1.438	5.992	46.224	2.518	10.492	33.936
4	1.372	5.717	51.941	1.372	5.717	51.941	2.282	9.508	43.444
5	1.135	4.728	56.669	1.135	4.728	56.669	2.237	9.323	52.766
6	1.039	4.328	60.997	1.039	4.328	60.997	1.975	8.231	60.997

In the above table, the 24 variables are reduced to 6 predominant factor of cumulative variance 60.997%. These 6 factors individually possess the variance of 12.637%, 10.807%, 10.492%, 9.508%, 9.323%, 8.231%. The individual variable loadings are given in the Rotated component Matrix.

Table 4: ROTATED COMPONENT MATRIX

Rotated Component Matrixa						
	component					
	1	2	3	4	5	6
Announcing new products						
I buy products on Facebook with a discount after watching the advertisements.	0.655					
Face book has universal appeal across different culture of the world	0.639					
I aware about the new innovated products on face book.	0.558					
Facebook advertising helps register the products in the minds of target customers.	0.612					
The product purchased on Facebook gives satisfaction to all age peoples.	0.600					
Customer relationship management						
I enquired about the faulty goods with the seller on Facebook		0.505				
Face book advertising is an effective tool of customer engagement.		0.574				
Facebook helps me to find the right product at the right time.		0.567				

I believe all post of the products on Facebook.		0.675				
Fan pages are important for me to learn more about the product / services.		0.575				
Enhancing brand reputation						
Facebook is ranked as number one social media site in the world.			0.676			
Facebook helps the brand for reputation in attracting potential customers.			0.642			
I give companies my opinion about what their marketing strategies could be			0.523			
I pay attention to brand advertisements during the breaks			0.766			
Customer engagement						
I use Facebook as tool to invite people for special events.				0.717		
I like to share content like audio, video, &/ or events textual content about the products.				0.604		
Face book possess unique product and marketable advertisements.				0.579		
Informative tool						
Face book gives me more information regarding current trends.					0.814	
Face book helps me to know more about the brand image of the products.					0.776	
I can ask people on Facebook to give me their opinions about a product/service I still didn't buy.					0.591	
Customer purchasing behaviour						
Face book advertising enables customer connection with the seller which result in brand credibility.						0.805
Facebook is my first choice for doing online shopping.						0.620
when I buy a product, I will give feedback to the company after using it.						0.517
The products purchased on face book are delivered on time to me.						0.468
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.						
a. Rotation converged in 9 iterations.						

1st Component - Announcing New Products: Highest loading value is “I buy products on Facebook with a discount after watching the advertisements”. (0.655)

2nd Component - Customer Relationship Management: Highest loading value is “I believe all post of the products on Facebook”. (.675)

3rd Component - Enhancing brand Reputation: Highest loading value is “I pay attention to brand advertisements during the breaks”. (.766)

4th Component - Customer Engagement: Highest loading value is “I use Facebook as tool to invite people for special events”. (.717)

5th Component - Informative Tool: Highest loading value is “Face book gives me more information regarding current trends”. (.814)

6th Component - Customer Purchasing Behavior: Highest loading value is “Face book advertising enables customer connection with the seller which result in brand credibility”. (.805)

IMPLICATIONS:

- ❖ The brands can design the advertisement creatively in the face book platform.
- ❖ Focus on selling the quality products to the customer, will make them to purchase again and again.
- ❖ Implementing live purchase on face book will enhance the customer perception.
- ❖ Brand can focus on customers review, ratings and satisfaction of payment features.
- ❖ Participate in face book groups can increasing the engagement, gaining insights into the audience needs and performance.

CONCLUSION:

It is concluded that, Facebook used as a marketing tool in the latest digital landscape is significant for the business. However, success of marketing in Facebook will not come without its challenges. The marketers are required to stay updated by adapting to the change in algorithm and policies. For businesses that are willing to invest their time and resources into utilizing the platform effectively, Facebook offers a unique opportunity to flourish in the virtual landscape.

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THE EFFECTS OF SOCIAL MEDIA ADVERTISING ON CONSUMER BEHAVIOUR

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ABSTRACT

Social media is now a key driver of consumer behavior in the modern interconnected world. It is no longer used merely as a means of communication; it's now a tool for marketing. Social media can influence what consumers buy and like through targeted advertisements. This study examines how social media advertising affects brand perception, buying behavior, and customer experiences. Through the analysis of the relationship between social media, advertising, and consumer behavior, seeks to provide useful information for business owners, marketers, and consumers in a rapidly evolving digital marketing environment. This introduction provides a brief background on the subject matter, noting the increasing prominence of social media advertising in the marketplace today.

INTRODUCTION:

The Rise of Social Media and its Impact on Consumer Decision-Making

Social media has emerged as a forceful shaping of consumer behavior. Beyond simple communication, these platforms have evolved into sophisticated marketing channels, employing targeted advertising to influence consumer choices. This particular study focuses on the various factors that social media advertising has on consumers, who pay attention to their brand image, consumption experiences, and purchase experiences. This research intends to provide useful information for business people, marketers, and consumers in the ever-evolving world of social media marketing. Participants were provided with a brief presentation to highlight aspects of their research topic, highlighting the significance of social media advertising in today's consumer market. Remember to tailor it to the specific focus and scope of your study.

REVIEW OF LITERATURE

- People are more likely to be drawn to an advertisement if it is entertaining (Alalwan et al., 2017). According to Dwivedi et al. (2017), creative and appealing ads are more successful in attracting consumers. Similarly, Jung et al. (2016) found a close connection between entertainment value and consumers' attitudes toward advertisements.
- Consumers' attitudes toward social media advertisements are a crucial factor affecting their purchase intentions; if unsatisfied with such ads, they won't purchase the goods or services (Liet al., 2002). In the same way, Zenget al., (2009) discovered that when online ads are relevant to their target audience, recipients develop a positive attitude and respond well to them.

OBJECTIVES

- To study how social media influencers and user-generated content play a role in shaping what consumers think and how they make their purchasing choices.
- To look how targeted advertising affects consumer privacy concerns and influences their trust in brands.

THE SOCIAL MEDIA INFLUENCERS' ROLE IN CONSUMER BEHAVIOR FORMATION

Social media influencers play a huge role in modern marketing. Their ability to connect with audiences on a personal level and build trust fosters a unique environment for brand promotion.

Influencers act as trusted intermediaries, shaping consumer perceptions through authentic endorsements and engaging content. Their recommendations carry weight, often perceived as more genuine than traditional advertising. This perceived authenticity stems from the influencer's established credibility within their niche, built upon years of sharing their passions and expertise with their followers.

Furthermore, influencers curate aspirational lifestyles, showcasing how products integrate seamlessly into their daily routines. This visual storytelling resonates deeply with audiences, inspiring them to emulate the influencer's lifestyle and, consequently, adopt the recommended products.

Beyond product placement, influencers actively participate in conversations surrounding brands, addressing consumer inquiries and fostering a sense of community. This two-way interaction strengthens brand loyalty and encourages repeat purchases.

RELATIONSHIP BETWEEN SOCIAL MEDIA AND PURCHASE DECISION

Social media, once primarily a tool for personal connections, has transformed into a powerful force in the business world. This trend is further amplified by increased disposable income, technological advancements, and evolving lifestyles. Through exploring the intricate nexus between social media, advertising, and consumer behavior, this research hopes to offer useful insights to businesses, marketers, and consumers of the fast-changing world of digital marketing. It emphasizes the importance of social media influencing consumer behavior and highlights the research's goal of providing valuable insights for stakeholders in the digital marketing landscape.

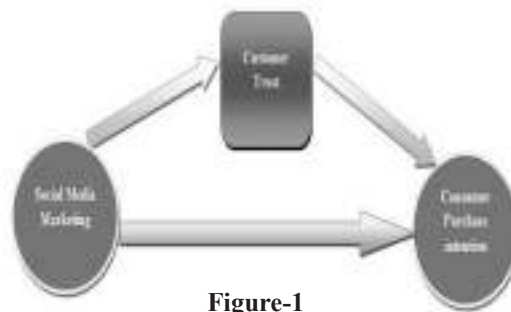


Figure-1

THE EFFECT OF TARGETED ADVERTISING ON CONSUMER PRIVACY ISSUES AND ESTABLISHING THEIR TRUST WITH BRANDS

Data Breaches

The enormous repositories of personal data held by advertisers make them a valuable target for malicious hackers. In the event of a data breach, sensitive details such as banking information, medical records, and personal tastes might be compromised and made vulnerable to identity theft and fraud.

Filter Bubbles

In addition, targeted advertising based on personal data may result in filter bubbles. Filter bubbles show individuals a limited scope of information and opinions that match their already-existent beliefs and potentially reinforce their prejudice and compromise critical thinking.

Sensitive Attributes

The second issue is that there could be discrimination by gender or other sensitive characteristics. Algorithms for targeted advertisements can even reflect and continue to perpetuate any existing bias, resulting in discriminatory treatment in hiring, housing, and lending, for instance. Women can end up being targeted disproportionately for advertisements for lower-level jobs or home products, for instance, whereas men would receive advertisements for better-paying jobs.

Lack Of Transparency

Lastly, the absence of transparency in data collection and usage practices is a concern for consumer trust. Open and honest communication with customers is the foundation of trust.

Social media sites are important in broadcasting these signals. Positive social proof can shape consumer attitudes and influence purchasing decisions. A good and positive brand image established over the years is priceless. Brand trust is essentially founded on a foundation of positive impressions, consistent experience, and open communication. Through fulfilling promises, going beyond expectations, and establishing good relationships with customers, brands can develop long-term trust and loyalty.



Figure-2

SUGGESTIONS

- * More Transparency: Brands should be more transparent about sponsored content and influencer collaborations.
- * Protecting User Privacy: Companies need to be more careful with our data and give us more control over how our information is used.
- * Authenticity and Engagement: Brands should focus on building genuine relationships with customers through authentic content and meaningful interactions.

CONCLUSION

The researchers looked at how targeted ads can make us feel about our privacy and trust in companies. Finally, we analyzed the connection between what we see on social media and our actual purchasing decisions.

We also looked at how targeted ads can affect us in terms of our privacy and trust in companies. Finally, we looked at the connection between what we see on social media and what we end up purchasing. We're also more likely to purchase if there's an endorsement from an influencer that we like or a lot of happy reviews and photos from other people.

We're also more likely to purchase if there's an endorsement from an influencer that we like or a lot of happy reviews and photos from other people. While we appreciate targeted advertisements, they're also concerned about privacy. We're concerned with how much information businesses are gathering about us and how they are using it. This sometimes has us be less trusting of businesses.

By knowing 7R principles- right product, right quality, right condition, right price, right place, right time, right consumer. we can make better choices as consumers and better navigate the world of online advertising.

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IMPACT OF INFLUENCER MARKETING ON CONSUMER BUYING BEHAVIOR – AN OVERVIEW

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ABSTRACT

Influencers are individuals or groups that are thought to possess a high degree of expertise or social influence in a certain sector. Influencer marketing is a type of social media marketing that involves endorsements and product placement from influencers. Influencers refer to individual or items that, by sharing original, often sponsored content to social media platform such as instagram, youtube, snapchat, TikTok and other digital platforms. It's possible to present influencer content as testimonial marketing. People with substantial social media followings who can affect their followers' purchasing decisions are known as influencers. Even while it is found that anybody can have an impact, the wealthy, well-known, and glamorous are frequently given preference online and in general in society at large. Also, it's not every social media account, and not every influencer represents people. An influencer gets compensated a fixed fee per post to promote a product or service. An influencer provides a link to a buying gateway in a post on a good or service. A measurement of a client's happiness with a company's goods, services, and capabilities is called customer satisfaction.

KEYWORDS: *Influencer, Social Media, Influencer Marketing, Endorsements, Testimonial Marketing, Customer Satisfaction, Buying Behavior.*

INTRODUCTION

Influencers possess the ability to modify consumers' purchasing behaviors via social media sites like Instagram, YouTube, Snapchat, and other internet channels. A highly participatory platform that enables people and groups to produce and exchange content with one another is referred to as social media. Influencers are celebrities and content creators on social media who have a large following and fan base. By choosing the proper influencer, one can effectively reach the intended audience.

Influencer marketing

Influencers are individuals or groups with a high degree of expertise in a given field, and influencer marketing is a type of social media marketing that involves their endorsement and product placement. This kind of marketing involves influencers reaching out to a wide audience to promote a business or product. To reach the intended audience, influencers give their followers the links and details about the products they recommend.

OBJECTIVES OF THE STUDY

- To understand the theories of Influencer marketing
- To analyse the various types of Influencers
- To identify the reasons for success of Influencer marketing
- To evaluate the advantage and disadvantage of Influencer marketing
- To explore the Models pertaining to Influencer marketing

The process of working with influence marketing

Influencer marketing is done at a very basic level .Producing content appealing to the influencer's audience is all that a successful influencer marketing campaign requires .The only very basic prerequisite for influencer marketing to be effective is meticulous planning and coordination between the company and the influencer so that the produced content is on brand and conveys the intended message.

Theories of influencer marketing

Numerous influencer marketing theory exist, trying to explain this marketing strategies. Researchers are curious on factors which compel consumers to purchase products after being encouraged by influencers. The aim of influencer marketing is to try and convert as much audience as possible.

1. The principle of Cooperation

In their interactions with their followers, influencers adhere to a cooperative principle. In order to ensure that their audience can easily understand the message being sent, they often paraphrase their text. Influencers can more effectively persuade their followers to buy things for the brand they are endorsing by employing the cooperative principle.

2. Hypothesis of Amplification

According to the amplification hypothesis, influencers who possess conviction in their subject matter draw in their audience. Customers are more likely to trust influencers who have expertise in their field. According to the amplification hypothesis, influencers who wish to sway the majority of their followers should make sure their information is accurate.

3. The theory of conversion

People have a long-lasting passion for things they cannot have, which is explained by the scarcity principle. According to this notion, people want things that are hard to come by or have limited supply. Brands with limited inventory are probably going to gain more. By limiting the availability of their items, brands can heighten consumer demand.

4. The Principle of scarcity

Face book and YouTube are two platforms where many influencer marketing techniques are used. Every day, billions of users visit these two platforms. Additionally, anybody can use these platforms, regardless of age. For this reason, while developing influencer marketing strategies, firms ought to take into account these two social media channels.

5. The Theory of Social Influence

Before making a purchase, two thirds of social media users consult friends, family, and influencers. Marketers saw this as a chance to persuade social media users to buy things from a certain company by using influencers. Therefore, before implementing any influencer marketing plan, influencers should enjoy a positive relationship with their audience.

Consumer behavior

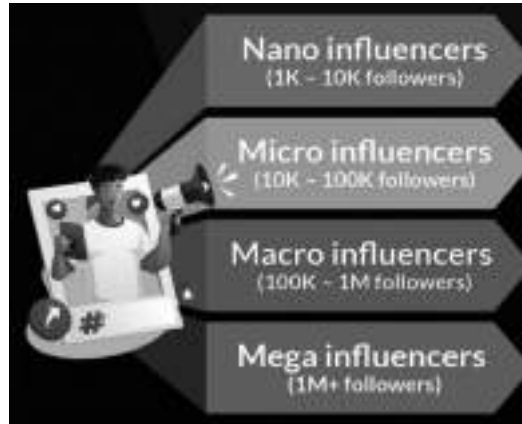
Understanding consumer behavior involves understanding how decisions are made about purchases as well as how goods and services are used and perceived. It refers to the choices and choices that consumers make when selecting, purchasing, utilizing, and discarding goods or services. It entails determining issues, gathering information, examining possibilities, making a purchase decision, and then reviewing the overall experience.

During these stages, numerous factors may affect customers like personal beliefs and values, social norms, advertising, product feature and external circumstances .Companies need a good grasp of consumer behavior to be able to create successful marketing strategies and come up with products and services that address the need and wants of their clients.

BACKGROUND OF THE STUDY Influencer Types

Social media influences are divided into categories depending on the number of followers .they range from marketing famous celebrities by individuals with enormous numbers of fans on social media platforms such as YouTube ,Instagram ,Facebook and Twitter to niche content .They possess a single to hundreds of millions of their fans .Four types of influencers

- Micro - influencers
- Macro - influencers
- Mega/celeb – influencers



(Source: medium.com)

1. Nano – influencers

These are the influencers with between a thousand and ten thousand follower.

2. Micro-influencers

These are the influencers who have between 10,000 and 100,000 followers.

3. Macro - influencers

These are the individuals who have between 100,000 and 500,000 followers.

4. Mega/celeb influencers

These are the influencers who have more than 500,000 followers.

The reasons for the success of influencer marketing as a growth strategy

Influencer marketing is becoming a successful expansion tactic for companies of all kinds. Here are a few explanations for this:

- A specific audience
- Dependable suggestions
- Increased participation
- Economical
- Measurable outcomes

● A specific audience: -

Through the identification of influencers with a sizable following in a given industry, influencer marketing enables firms to connect with a very specific target market. So that the company may be sure the appropriate people are seeing their message.

- **Dependable suggestions**

Customers believe the advice given by the influencers they follow. Influencer marketing gives companies the credibility they need to advertise their goods or services.

- **Increased participation**

Campaigns using influencers frequently result in higher engagement rates than those using conventional advertising techniques. This is a result of the influencers' deep relationships with their followers and the content they produce that speaks to them.

- **Economical**

Influencer marketing has the potential to be more affordable than conventional techniques. Rather than shelling out a lot of cash for a single advertisement, companies may collaborate with several influencers to produce content that is seen by more people.

- **Measurable outcomes**

Campaigns using influencers are very measurable. Metrics like click-through rates, conversion rates, and engagement rates help businesses determine the effectiveness of their initiatives.

Influencer marketing benefits include:

- ☐ Reaching an appropriate audience
- ☐ Developing credibility and trust
- ☐ Extending the brand's reach
- ☐ Concentrating on a certain demographic and
- ☐ High-quality content created by users

1. Reaching an appropriate audience

Collaborating with the Influencers relevant to your field and sector is crucial. Reaching a larger number of intended audiences is made possible by selecting the ideal influencer who promotes businesses.

2. Developing credibility and trust

When an influencer talks about a brand, their followers will inevitably come to believe them. The best strategy influencers have is one that the company can utilize to help people develop a stronger sense of confidence in the brand and increase brand credibility.

3. Extending the brand's reach and

Influencers who are popular for their image and the content they deliver to their followers lead the way in broadening the brand's reach. They assist by adding new likely clients and customers to the existing database.

4. Concentrating on a certain demographic

By working with the influencers the message reaches the individual who is probably going to be eager for the brand's products and services without you lifting a hand to discover them.

5. High-quality content created by users

A decent influencer marketing advertising campaign concentrates on the image objective and the message that needs to be delivered. Influencers are effective in producing extra user-generated content from their designated crowd.

Disadvantages of Influencer marketing

It Can Be More Harmful to Work with the Wrong Influencers than Beneficial

Your brand may suffer from improper influence marketing

Customers spend a lot of time

There is a high danger

Influencer exhaustion

1. It Can Be More Harmful to Work with the Wrong Influencers than Beneficial

For companies to effectively fulfill their objective, some financial commitments and effort are necessary. If you don't collaborate with the appropriate influencers, it might seriously damage your reputation.

2. Your brand may suffer from improper influence marketing.

Since influencer marketing is a relatively new approach, there isn't a manual available to demonstrate the methods. This is the reason why blunders are bound to happen in advertising.

3. Customers spend a lot of time.

It is necessary to investigate and identify the influencers that best fit your brand; accepting the collaboration is a significant time commitment.

4. There is a high danger

An influencer marketing strategy typically won't guarantee the best result. The effort and money invested by an influencer will be lost if they are unable to produce truly remarkable content.

5. Influencer exhaustion

Due to its visual nature akin to Face book, Instagram attracted a lot of extra sponsored sponsorship from advertising. It will take some tougher recollections for the shoppers and influencers to be believed.

MODELS OF INFLUENCER MARKETING

Word-of-mouth (wom) marketing and opinion leadership are the ideas explored in multiple narrative studies and empirical research. Opinion leaders are the individuals who are experts in certain things. They affect the decisions of others, which has connectivity with word of mouth. **Johansen & Guldvik (2017)** noted that there is a huge difference between opinion leadership and influencer marketing, where influencer marketing targets a multimillion-dollar audience while opinion leaders communicate with only a few people. An influencer continuously invests their time in the creation of the contract & combining it with brands, while word of mouth is typically a single action event.

SAM is a common theory in social science that is explored both empirically and theoretically. Based on SAM, people tend to prefer, to be around those who are similar to them (**Argyris et al., 2020**). Overall, they are influenced by the people who have a large number of similarities. Those similarities are assessed based on the attitudes that individuals have. In the context of influencer, SAM & the theory of decision making where individuals seek advice from others when they are deciding to make a purchase. In conclusion, followers get attracted to the influencers who are most similar to them.

Chetioui, Benlafqih, and Lebdaoui (2020) explored the industry of fashion and how consumers' perceptions are shaped by the influencers. The key theme that is explored is the **Theory of Planned Behavior (TPB)**, which suggests that the attitude toward an influencer affects the perception of a brand. They state that

among the factors that correlate with purchasing intention and brand perception, are credibility, trust, behavioral control, expertise, perceived norms, and congruence. As noted by the authors TPB is an extension of TPA. TPB suggests that three key factors determine the likelihood of a purchase — 'attitude, subjective norms, and behavioral control'.

REVIEW OF LITERATURE:-

1. Johan Grafström, et al., (2018)

The aim of the study is to investigate; the reasons which affects Swedish millennials attitudes by influencer marketing on Instagram and blogs. The data collected and categorical indexing tool was used to analyze and to identify patterns and repeating topics that became apparent during transcription. This research conducted under deductive approach as it explores and adds on existing literature and an abductive approach during analysis

.The general outcome of this study is that millennials attitudes are influenced by influencer marketing because of various factors like congruity between offers proposed by an influencer, trustworthiness and credibility of messages and a change in the style of an influencer.

2. Dhruvinkumar Chauhan, et al., (2022)

The goal of the research project is to determine how influencers affect consumers' cosmetic brand loyalty and how they persuade them to buy products that uphold a particular brand. Descriptive quantitative methodology was employed in the study to determine the influence of influencers on cosmetic brand loyalty. Indian consumers provided data for the current study via an online survey created with Google Forms. The aim of this study is to understand the impact of influencer marketing on customer brand loyalty to cosmetic products in unique generations. With a total

of 360 respondents, the results indicate a favorable association with brand loyalty. The study concluded that social media influencers are receiving more market and consumer mentality trends. There was a strong positive correlation since the research establishes a foundation for a certain field and Gen Z, X, and Y and their purchasing habits.

DISCUSSION AND CONCLUSION

Influencers are individuals who have a large number of followers on social media. They can be used to promote brands to a specific audience. This is known as influencer marketing, and it involves influencers showcasing a product or service to their followers. By promoting the brand in a way that is relatable to their followers, influencers can greatly help to increase brand recognition and expand the brand's reach. Influencers are categorized based on the size of their following and can have a significant impact on a brand's reputation and revenue. They focus on specific demographics to promote the brand effectively and reach a highly targeted audience without much effort. The behavior of customers can be complex, especially when they are considering expensive purchases. Customers tend to do extensive research before investing in such products.

In today's world, anyone can become an influencer. However, the internet and the world, in general, tend to favour the rich, famous, and glamorous. Therefore, organizations must focus on satisfying their customers. Targeting influencers can help increase marketing reach and counteract the growing tendency of prospective customers to ignore marketing. It's essential to understand the voice of the customer, which can be achieved through

tools such as customer surveys, focus groups, and polling. The most significant difference between influencer marketing and other forms of digital advertising is that it builds credibility and conversation in the marketplace.

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A STUDY ON PREVALANCE OF HOMELESSNESS IN THIRUKAZHUKUNDRAM TALUK, CHENGALPATTU DISTRICT

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ABSTRACT

The prevalence of homelessness has increased in both urban and rural areas where individuals face several difficulties due to changes in lifestyle and economic burdens. Poverty, prejudice, natural and man-made disasters, and poor physical and mental health are some of the factors that contribute to homelessness. The phenomenon has grown to be one of the most significant societal issues. Purposive sampling was the type of sampling employed in this study, and a mixed method research design incorporating both quantitative and qualitative data was used. The data gathered from several participants served as the basis for the analysis and interpretation. All objectives and the methods that have been provided were carefully considered.

The main findings of this study help to determine the proportion of homeless people in Thirukazhukundram Taluk who manage on their own without any further assistance and the epilogue seeks to offer a significant intervention that can open doors for further research and development on homeless persons in both urban and rural areas and this would also show that those who have experienced homelessness for an extended length of time have had substantial.

KEYWORDS: Homelessness, Challenges, Prevalence, Health, Poverty.

I. INTRODUCTION

Homelessness is the absence of a permanent dwelling or home. Few societal issues are as obvious as the situation of the homeless. Homeless individuals, formerly almost invisible and easily overlooked, are now familiar sights in cities, suburbs, and even some rural places. Men wander the streets, carrying what remains of their belongings in shopping bags or supermarket carts. Women

are curled up on benches, stairwells, and beneath bridges. Families, mostly moms and children, are scrounging for food and shelter. Homelessness manifests itself in various ways, but the majority of homeless people share one characteristic: poverty. Homelessness, often known as unhoused or unsheltered, is the lack of stable, safe, and functioning housing. The term “homelessness” refers to a variety of situations, such as

- ❖ Living on the streets or rough sleeping (Primary Homelessness).
- ❖ Moving between temporary shelters, including houses of friends and family, and emergency accommodation (secondary homelessness, also known as couch surfing)
- ❖ Living in boarding houses without a private bathroom or security of tenure (tertiary homelessness).
- ❖ Not having access to permanent or secure housing. (vague)
- ❖ Internally displaced people who abandon their homes due to civil violence and become refugees within their country’s borders.

The term “unsheltered homeless” appears in recent homeless enumeration surveys. The conventional term “street people” does not fully embrace all unsheltered people, as many of them do not spend their time in metropolitan street surroundings. Many people avoid such places because homeless persons in cities are more likely to be robbed or harmed. Some people convert unused or abandoned structures (“squatting”), live in hilly places, or, more commonly, in lowland meadows, creek banks, and beaches.

Many governments have established programs to provide short-term emergency shelter during exceptionally cold winters, which are frequently held at churches or other institutional sites. These are known as warming centers, and its supporters claim that they save lives.

II. REVIEW OF LITERATURE

According to the review article “Homelessness: A Hidden Public Health Problem” by S. Patra and K. Anand (2008), Homelessness is a societal problem which affects the whole society not just the people. In this paper the researchers discuss about the method used to estimate the homeless people numbers, their health problems and their health care needs, since there is no proper data about the health problems faced by homelessness in India. This sub-section of the society lacks special health care facility, social programme and services. There are inadequate number of existing shelter homes and other barriers which put a stop to access to proper existing healthcare. The researchers’ highlights that Homelessness seems to be increasing due to changing social and economic status of the society, we need to admit homelessness as a public health problem and take steps to promote equity in health system.

Lakshmi Narasimhan, K.V. Kishore Kumar, Barbara Regeer & Vandana Gopikumar, in the article Homelessness and Women Living with Mental Health Issues: Lessons from the Banyan’s Experience in Chennai, Tamil Nadu (2020), One in ten Indians, suffer from mental illness, and between 40 and 90 percent do not receive the essential care. In this case, the relationship between mental illness

and homelessness is a particularly complicated one with several facets. The disenfranchised, invisible, marginal existence of women with mental illness living on India's streets is typically caused by a history of extreme poverty, key life events, and gender-based disadvantage. Because there are gendered paths into homelessness for people with mental illness, different approaches and practices from the health and social care systems must be taken into account. In the Indian context, primarily led by civil society actors, few interventions that prioritise social care have surfaced to address the core of this intricate relationship between homelessness and mental illness. The experience of The Banyan, India, in creating a continuum of care for mentally ill homeless persons is discussed in this study. More precisely, the Emergency Care and Recovery Centre is investigated. It provides homeless women with mental illness with reintegration assistance and crisis intervention. It presents the ramifications for mental health policy and practice for a severely marginalised community within the story of this event.

III. RESEARCH METHODOLOGY

GENERAL OBJECTIVE

To study the prevalence of homelessness in Thirukazhukundram Taluk, Chengalpattu District

SPECIFIC OBJECTIVE

1. To identify prevalence homelessness in Thirukazhukundram Taluk.
2. To understand the problems faced by homeless people.
3. To examine the functioning of night shelter home in Thirukazhukundram Taluk.
4. To design intervention strategies to reach out the needs of homeless people.

STATEMENT OF THE PROBLEM

The prevalence of homelessness is a critical societal issue that demands comprehensive examination and understanding. Despite various efforts to address homelessness, there remains a lack of in-depth research into the root causes, demographic patterns, and regional variations influencing the prevalence of homelessness. This research aims to fill this gap by investigating the factors contributing to homelessness, exploring the demographic characteristics of the homeless population, and identifying geographical disparities. The ultimate goal is to provide evidence-based insights that can inform effective policies and interventions to reduce homelessness and improve the well-being of those affected. The growing prevalence of homelessness poses a multifaceted challenge to communities. This research seeks to delve into the underlying factors driving homelessness, including economic, social, and systemic issues. By examining demographic patterns, such as age, gender, and ethnicity, within the homeless population, we aim to uncover specific vulnerabilities and disparities.

RESEARCH DESIGN

The researchers applied a mixed-methods research design that incorporates both quantitative and qualitative components. Consider the following elements:

Quantitative Phase:

Develop questionnaire to collect numerical data on the prevalence of homelessness. Include questions on demographics, living conditions, and factors contributing to homelessness.

Qualitative Phase:

Conduct interviews, focus groups, or open-ended surveys to gather in-depth insights into the experiences and perceptions of homelessness in Thirukazhukundram.

UNIVERSE OF STUDY

The universe of the study will be in Thirukazhukundram Taluk and nearby area, which is in Chengalpattu district.

SAMPLING METHOD

The researchers used purposive sampling technique. This is a non-probability sampling technique where researchers intentionally select participants based on specific criteria relevant to the research question. In the context of studying homelessness in Thirukazhukundram, using purposive sampling allows researcher to deliberately choose participants who offer diverse perspectives, backgrounds, and experiences related to homelessness.

TOOLS FOR DATA COLLECTING:

The tool used for data collection is questionnaire method to understand the reason for the homelessness and identify the needs and problems faced by homeless people.

Source of data:

The researchers have used both primary and secondary data to identify the prevalence of homelessness.

Primary data:

The researchers have collected the data through interview method where open-ended questions were asked to identify the problems, needs and the reason for homelessness.

Secondary data:

The researchers used Journals, research articles to collect secondary data related to the study.

IV. DISCUSSION ON FINDINGS

1. **Demographic Details of the respondents:** 79% of the respondents belong to the age group of Above 51 years and others belong to the age of 31-50 years. More than half (57%) of the respondents are female and other respondents where male. Half of the respondents (50%) were widow, 43% of them are married and less than 7% are single. The reason for homeless is found that more than half of the respondents

2. **Reason and duration for homelessness:** Most of the respondents (57%) are homeless due to family issues and 22% have left their home due to other reasons such as lack of interest in family life, not willing to work and is not able to live along with their children. 14% of the respondents have relationship issues with their spouse or children, and others (7%) are homeless due to financial issues. Nearly two-third (64%) of the respondents is homeless for more than 2 years, 29% of the respondents are homeless for 1-2years and 7% of the respondents are homeless for 6 month to 1 year. 43% of the respondents stay near the temple, 36% of them stay on roadside shops and others (21%) stay at railway station/bus stand.
3. **Basic fundamental needs:** Most of the respondents get their fundamental needs such as food, clothes, water by begging. The respondents sleep outside the closed shops during night and they get food through Annadhanam in nearby temples. Clothes for these people are provide by people who visit the temple. The respondents use public rest room to use toilet and will take bath in the nearby Sangu Theertham pond.
4. **Survival without shelter:** The survey is conducted in and round Tirukazhukundram temple and bus stand, so most of the respondents stay outside the temple and in bus stand which provides shelter for the homeless people. They stay outside closed shops during night time and in the morning will go and sit outside the temple for begging.
5. **Livelihood during Natural Disaster:** The respondents stay in temple and in bus stand which provides shelter for them. They aren't much worried about natural disaster such as flood and rain as they stay in a safe shelter. Also, the livelihood is not disturbed as they get food and bed sheets from the government and other NGO'S.
6. **Other people treat homeless people:** The respondents said that they are treated well by the people who visit the temple. They give them money, clothes and food while they cross them. Sometimes, these people are scolded for sleeping outside the closed shops.
7. **General public interact with them or help them:** The general public just give them money and food but doesn't care why they are like this because, they are not much worried about the peoples who stay in roadside.
8. **Human Rights denial:** The respondents said there is no human rights denial and strongly disagreed to the statement. The public have not discriminated or treated them vulnerably; the homeless people feel safe and secure to live with the other general public.
9. **Challenges in daily life:** The respondents face challenges like; unsanitary living condition, Limited access to health care service, poor basic hygiene practices, mental health problems, Food insecurity, lack of shelter, lack of employment opportunity, stigma and social isolation.
10. **Daily expenditure and earnings:** The respondents have no source of income, as they rely on begging for their daily expenditure. There is no other form of earnings compared to other public.
11. **Tried to reunite with family members:** The respondents haven't tried to reunite with their family members so far and some of the respondents don't have family members.
12. **Needs of their daily life:** The needs of the respondents are; shelter with sanitary living condition, good food and sleep, access to health care service and employment opportunity.

13. **Shelter home:** There is a felt need of shelter home; the shelter home will fulfil the felt needs such as shelter, food, sleep, health care access and other basic need services of the homeless people to rebuild their lives.
14. **Skill training:** Some of the respondents said that they need such skill training program in order to generate income for their daily expenditure rather than begging. Other respondents are elder people and can't able to work on their own to generate income.

V. SUGGESTIONS

1. Homelessness Prevention Programmes:

- Provide rent subsidies and financial aid to families and individuals who are at risk of homelessness or eviction.
- To lessen the financial burden on low-income households, make inexpensive transportation and healthcare services available.

2. Health Care Services:

- To ensure that homeless people have access to complete healthcare services, such as primary care, behavioral health services, preventive care, and medication management, Medicaid eligibility and coverage should be expanded.
- In order to effectively interact with homeless populations and meet their specific health needs - such as trauma-informed treatment and harm reduction techniques - healthcare providers and outreach workers need receive training in this area.

3. Social Services and Support Networks:

- Expand financing to support temporary housing programmes, and emergency shelters in order to give homeless people and families prompt assistance.
- Encourage homeless people to form mutual assistance and peer support networks in order to provide them a sense of empowerment, community, and camaraderie.

4. Legal Assistance:

- Educate homeless people legal education resources and know-your-rights programmes so they may represent themselves in justice and understand the legal system.

5. Building up of night-shelter home/ shifting the people to old-age home:

- Researchers are diligently exploring avenues to address the needs of vulnerable populations, particularly those experiencing homelessness. One approach involves the establishment and enhancement of night shelter homes, providing safe havens for individuals without adequate housing, ensuring they have a place to seek refuge and rest. Additionally, researchers are considering the viability of transitioning homeless individuals, particularly seniors, to old-age homes where they can access not only shelter but also essential services catering to their specific needs. By bolstering both night shelter homes and old-age facilities, these efforts aim to provide a comprehensive support system, addressing the basic needs of individuals experiencing homelessness and ensuring they receive the care and assistance necessary for their well-being and dignity.

VI. CONCLUSION

As a result, this study highlights the startling prevalence of homelessness and sheds light on the complex issues that both individuals and communities must deal with. The results underscore the pressing requirement for all-encompassing and focused interventions that tackle the underlying causes of homelessness, encompassing financial inequalities, psychological disorders, and systemic elements. As the demand on public resources, healthcare systems, and emergency services increases, the presence of homelessness also has a substantial economic impact. In addition to being morally right, addressing homelessness is also practically necessary to promote social stability and economic development. The findings emphasize the necessity of a comprehensive, collaborative, and ongoing effort to combat homelessness. Cities may work to create inclusive, resilient, and compassionate urban landscapes that leave no one behind by putting evidence-based policies into practice, encouraging community engagement, and placing a high priority on the well-being of all people.

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MODERN APPROACHES IN WASTE MANAGEMENT: A PATHWAY TO SUSTAINABLE DEVELOPMENT

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ABSTRACT

The increasing adoption of Artificial Intelligence (AI) across industries is transforming traditional management practices and offering new opportunities for sustainability. As urban populations continue to grow, cities around the world face mounting challenges in managing waste sustainably. This paper explores the concept of examining the key strategies for achieving sustainable urban waste management. Reusing resources, recycling, and implementing waste-reduction techniques are the 3R's of waste management. The study looks into how technological advancements, community-driven strategies, and policy frameworks support effective waste management programs. Additionally, the role of emerging technologies, including Artificial Intelligence (AI) and Internet of Things (IoT), in optimizing waste collection, recycling, and resource management is discussed. Ultimately, by adopting a holistic approach to waste management, cities can reduce their environmental footprint, foster sustainable growth, and move closer to achieving a zero-waste future.

KEY WORDS: *Waste Management, Recycling, Reusing, Reduction practices, Sustainable Development.*

INTRODUCTION

In pre-artificial times, when population was small, waste was disposed of on the ground, thrown into water, burnt or thrown into a hole where it would turn to compost waste to improve soil fertility. It's considerably accepted that reduce, reuse, recycle (3R) and waste operation programs are fundamental for the development of a society. Still, 3R and waste operation programs vary from country to country depending on each country's specific circumstances and political strategies.

AI has been applied recently to a number of tasks, including logistics, waste management, water treatment, environmental contamination issues, and solid waste management strategy planning.

The importance of this waste management strategy study using the 3R is related to the increase in the amount of waste that threatens environmental stability and the increase in consumption. This research aims to provide insights for communities and policymakers to promote sustainable practices.

OBJECTIVES

- To study the concept of 3 R's.
- To identify waste management for sustainable development.

REVIEW OF LITERATURE

- **Sudipti Arora et. al., (2021)** analysed that adopting sustainable consumption practices and the zero-waste model is essential for tackling the growing waste crisis and resource depletion. Additionally, it highlights the importance of implementing supportive policies to drive economic growth and promote effective waste management solutions.
- **Rajendiran Naveenkumar and Jayaraj Iyyappan (2023)** investigated that the increasing energy demand was linked to economic growth and the role of Municipal Solid Waste (MSW) as a feedstock for biofuels under Sustainable Development

Goals. It critically examines the risks and challenges in sorting and transporting MSW, as well as various conversion technologies for energy production. It also outlines the relevant policies for effective management to promote sustainable energy solutions.

- **Tejendra Singh Gaur et al., (2023)** researched the persistent issues of e-waste by exploring sustainable management practices within a circular economy framework. It identifies seven key challenges to effective e-waste management and highlights eight essential circular economy practices. Ultimately, it seeks to enhance the recovery of valuable materials and reduce environmental impacts associated with electronic waste.
- **Mashudi et al., (2023)** examined about environmental impact of innovative waste management strategies and technologies. Also highlights their potential benefits while stressing the importance of mitigation measures to minimize negative effects. The research point out how these innovations can lead to long-term environmental sustainability.
- **Aid G et al., (2016)** examined that relevance of historic waste management policies and tools in achieving the United Nations' Sustainable Development Goals (SDGs). It evaluates traditional principles like the waste hierarchy and resource efficiency indicators in the context of multiple SDGs. The paper argues that these tools need adaptation to prevent conflicts and better support integrated sustainability goals. It offers recommendations for evolving waste management strategies to align with modern, sustainable development frameworks.

RESEARCH METHODOLOGY

This paper is based on secondary data with collected information from articles, journals, websites, books, etc. This study was discussed based on the information collected from research papers and articles on the topic of waste management sustainable development.

CONCEPT OF 3Rs

The 3R of waste operation represents reduction, reusing, and recycling. These generalities are essential for minimizing waste and promoting sustainability. This helps reduce the quantum of carbon dioxide in the atmosphere and protects the terrain. The need to contribute to breathe healthily and live healthy lives. The European Union (EU) 2010 aims to move waste operation up the waste scale with emphasis on 3R programs, through community participation and mindfulness.

REDUCE

This principle primarily aims at minimizing waste generation. The less waste is produced, the lesser the burden on these landfills and natural resources.

- (i) **The environmental impact:** reducing landfills leads to reducing emissions of methane, a potent greenhouse gas that causes climate change.
- (ii) **Cost Reduction:** the reduction of waste will save money for individuals and businesses. Less buying means less production cost for businesses and a financial relief to consumers who no longer need to buy unnecessary items.

REUSE

Reusing details extends their lifetime, and the demand for new details is minimized. Examples include using glass containers for warehouses, reusing used clothes, and offering details instead of throwing them on the ground.

- (i) **Conservation of Resources:** Reusing things lessens the need to produce new goods, which conserves natural resources, lowers energy consumption, and lessens the impact on the environment.
- (ii) **Economic Saving:** Both individuals and businesses can save money by reusing items. Reusing offers less expensive options than buying new things.

RECYCLE

Recycling is the process of converting waste materials into new products to decrease the use of raw materials for the firsttime, avoid wasting potentially useful materials, and lower air and water pollution by decreasing the amount of trash disposed.

- (i) **Reduction of waste:** Reducing the amount of waste and burners makes landfills less of a necessity, thus reducing pollution.
- (ii) **Energy Conservation:** Producing new products from recycled materials typically requires much less energy than manufacturing them from raw materials. For example, producing recycled aluminium requires nearly 90% less energy as compared with the production of aluminium from aluminium ore.

THE IMPORTANCE OF THE 3R PRINCIPLE

India is fast urbanizing, growing in population, and increasing in waste. With millions of tons of waste each day, the 3R provides a firm base to reduce the impact on the terrain. Source reduction of waste by conscious consumption lessens tip pressure and pollution. By using the 3Rs, India can strive towards an even more sustainable future by perfecting public health and conserving its varied ecosystems.

3R’s PERFORMANCE IN INDIA

India’s flagship program, Swachh Bharat Abhiyan, has focused on waste operation and sanitation. The management of solid waste in developing countries is very challenging due to low public participation, making waste frequently dumped together or by open areas. The 3R’s (Reduce, Reuse, Recycle) can be emphasized and lead to significant long-term benefits.

INITIATIVE AND POLICY

- **Plastic Waste Management Rules, 2016:** Ministry of Environment, Forest and Climate Change, India has introduced amendments in the Plastic Waste Management Rules, 2016, through Plastic Waste Management (Amendment) Rules, 2024. This is a significant move to combat plastic pollution in India, particularly by attacking microplastics and introducing stronger norms for biodegradable plastics.
- **E-Waste Management Rules, 2016:** The E-Waste Management Rules of 2016 in India accreditation businesses to safely dispose of electronic waste and apply Extended Patron Responsibility for recovering a minimal chance of their products.

WASTE MANAGEMENT FOR SUSTAINABLE DEVELOPMENT

Waste operation is a pivotal element of sustainable development that looks for results that don’t harm the terrain or mortal health and concentrate on reducing natural resource consumption.

Process of Sustainable Operation	Strategies	Outcomes
Reduce	Encourage consumers to buy in bulk, choose products with minimal packaging, and use digital documents to cut paper use.	Lower waste generation and reduce landfill.
Reuse	Encourage businesses to design products that can be fluently repaired or reused.	Extends the lifecycle of products, decreases demand for new goods.
Recycle	Implement recycling programs, and educate the public on recyclable materials. Invest in modern recycling technologies for better efficiency.	Conserves natural resources, reduces energy consumption, and minimizes pollution.

CHALLENGES FACED IN DEVELOPMENT OF WASTE MANAGEMENT IN INDIA

Inadequate infrastructure: Many urban and rural areas lack proper waste collection, sorting and disposal infrastructure, leading to inefficient waste management.

Improper sorting practices: Lack of awareness and education means waste is not properly sorted at source, making it difficult to recycle or compost.

Lack of public awareness: Many citizens are unaware of the importance of waste sorting and the 3R principles, which hinders community participation in waste management initiatives.

CONCLUSION AND RECOMMENDATION

The increasing participation in the 3Rs is essential to protect the environment and stimulate the economy. To achieve this, comprehensive environmental education and financial incentives from local governments to encourage responsible practices must be prioritized. To evaluate the effectiveness of these strategies, you need powerful surveillance and evaluation measures. Everyone has a role to play in making our world a greener, better place to live and zero waste in future.

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THE IMPACT OF STUDENT-TEACHER RELATIONSHIP ON STUDENTS' ACADEMIC ACHIEVEMENT

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ABSTRACT

The research aimed to assess the methods employed by teachers to promote positive interactions with their students, with a focus on the correlation between these interactions and academic success. The study sought to explore the dynamics of teacher-student relationships and identify key elements of healthy connections within the classroom. Positive relationship characteristics, such as closeness, caring, trust, and respect, were been highlighted. Collected data from 515 students from various colleges who responded to the survey are used in this study. According to the study's findings, there was a strong bond between students and teachers. These bonds also have a big influence on students' academic success and can be used as a tool for classroom management because they promote approachability, communication, contribution, and eye contact in student-teacher relationships.

KEY WORDS: *Student-teacher positive relationship, Academic achievement, perceptions.*

INTRODUCTION

The cornerstone of every individual's life was establishing a high-quality education, a vital foundation that required providing students with essential resources like engagement and motivation for success. However, intrinsic motivation was not universally prevalent among students. Consequently, it became the responsibility of others to guide and mentor students in their educational pursuits. Considering that at least 25% of a student's waking hours were spent in schools and colleges, with the majority occurring in classrooms, the nature of interactions between students and teachers played a significant role. Positive teacher-student relationships were often characterized by the establishment of trust, emotional security felt by the student, teacher support, and challenging the student to excel academically. Creating strong bonds between students and their teachers conveyed the message that learning was a continuous process

OBJECTIVES

The objectives of the study are as follows:

1. To investigate students' perspectives on their interactions with teachers.
2. To identify positive aspects of the student-teacher relationship.
3. To determine the impact of the relationship between students and teachers on academic success.

REVIEW OF LITERATURE

- **Akhtar, S et al., (2019)** Conducted a study on student-teacher interaction on the academic Performance of the students. This research paper's main goal was to examine how interactions between teachers and students affect students' motivation and academic performance. The study employed a descriptive cross-sectional correlation design focusing on physiotherapy and nursing departments at the Lahore School of Nursing with a sample size of 217. Simple random sampling was used to select participants, including faculty and students. The research utilized the Pearson correlation as one of its instruments, with a modified questionnaire administered to collect information from participants. The data were analysed using the questionnaire to determine mean values, frequencies, and percentages. Overall, in this research, the authors sought to contribute insights into the link between teacher-student dynamics and its impact on students' motivation and academic performance.
- **Ayesha Afzal et al., (2023)** Conducted a study on the influence of teacher-student relationships on academic achievement. The objective of this study was to explore the interactions between students and teachers and the consequential impact on academic success. The researchers investigated how a student's academic advancement was shaped by their relationship with their teacher, involving a total of 800 student participants. A convenient sampling technique was employed, where encompassing students from all universities in Lahore, both public and private. In this study's conclusion, the authors emphasized the significance of students' perceptions of their relationships with teachers, highlighting the positive impact on grades and overall achievements.
- **Tormey R. (2021)** Assessed the student-teacher connections via a multifaceted lens. This paper sought to present a conceptual framework for understanding student-teacher relationships in higher education by emphasizing the emotional quality of these relationships, beyond just focusing on teacher behaviour. This paper utilizes data from 851 students, the study employed the Classroom Affective Relationships Inventory to assess the proposed three-dimensional model. The research utilized regression analysis and chi-square as analytical tools. This study's findings supported the adoption of this multidimensional model for understanding student-teacher relationships. The literature on the emotional dimensions of student-teacher relationships in higher education, the author concluded, emphasizes how much these relationships affect the experiences of both teachers and students.

METHODOLOGY

- This is a descriptive and analytical study.
- An empirical study was conducted with a structured questionnaire having a five-point Likert scale.
- A sample size of 515 and a method of convenience sampling was adopted.

DATA ANALYSIS AND INTERPRETATION

Percentage Analysis:

Table 1 : Demographic Profile

Factors	Category	Percentage
Gender	Female	64
Age	17-20	49
Type of the Institution	Private	67
Educational Status	Undergraduate	67
Field of study	Arts	50

- In the above table, the percentage of respondents according to gender: Female – 64%, Male – 37%.
- 49% of the students belonged to the age group of 17-20 years; 44% of the students were between the age group of 20-23 years and 6% of the students were above 23 years.
- 67% of the students belonged to a private institution and 33% of the students belonged to Aided/Government institution.
- 67% of the students were been from Undergraduate; 23% of the students were been from Postgraduate; 4% of the students were been from Diploma and 6% of the students were been from professional.
- 50% of the students belonged to the Arts field; 8% of the students belonged to the science field; 37% of the students belonged to the medical field and 3% of the students belonged to polytechnic.

Table 2 : Student-Teacher Relationship on Academic Achievement

Variables	Category	Percentage
Year of studying	2nd year	36
Class strength	41 to 80	66
Frequency of interaction	Occasionally	41
Students trust	Sometimes	49
Teacher's attitude	Little	36
Impact on attendance	Yes	58
Effect on opinions of the previous students	No	62
Method of lectures	Interactive teaching	83

- 19% of the students from 1st year; 36% from 2nd year; 23% from 3rd year; 18% from 4th year and 4% from 5th year.

- ### Factor Analysis:

Factor Analysis is used to identify complex relationships between items and groups of items that are part of a unified concept.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.946
Bartlett's Test of Sphericity	Approx. Chi-Square	7984.031
	Df	351
	Sig.	0.000

A statistical method for assessing sample adequacy, KMO & Bartlett's Test of Sphericity is typically used to examine the variable ratio for the analysis of the data being directed in the study. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy value in this study is .946, and the chi-square value is 7984.031, according to the KMO analysis. Because Bartlett's test has also been found to be very significant ($p < .001$), Factor Analysis is suitable for this investigation. This study's Sig. value is .000, which is significantly less than 0.05. Therefore, this study satisfies every prerequisite for performing a factor analysis.

Total Variance Explained									
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative	Total	% of Variance	Cumulative	Total	% of Variance	Cumulative
1	11.487	42.543	42.543	11.487	42.543	42.543	6.769	25.069	25.069
2	2.328	8.621	51.164	2.328	8.621	51.164	3.315	12.277	37.346
3	1.189	4.404	55.568	1.189	4.404	55.568	3.243	12.013	49.359
4	1.150	4.260	59.828	1.150	4.260	59.828	2.827	10.469	59.828
Extraction Method: Principal Component Analysis.									

The 27 variables are reduced to 6 predominant factors of cumulative variance of 59.828%. These 4 factors individually possess variances of 25.069%, 12.277%, 12.013% and 10.469%. The individual variable loadings are given to the Rotated Component Matrix.

Table 5 : Rotated Component Matrix

Rotated Component Matrix(a)				
	Component			
	1	2	3	4
APPROACHABILITY				
My teacher motivates me.	.652			
My teacher shows genuine care for me.	.624			
My teacher has supportive attitude.	.638			
My teacher understands your problems.	.596			
I feel very close to my teachers.	.591			
My teacher is available after class.	.663			
My teacher provides assistance whenever required.	.626			
My teacher guides me after class.	.693			
My teacher provides me different skills for life.	.688			
My teacher has good connectivity with me.	.693			
My relationship with my teachers is friendly and equal.	.687			
I know the character of most of my teachers.	.639			
My teacher feels comfortable with students.	.660			
My teacher responds to queries.	.605			
COMMUNICATION				
Teachers and we have a variety of daily communication activities (such as eating and traveling).		.580		
I have confidence in the expressiveness of most teachers.		.702		
I have confidence in the guidance of most teachers.		.660		
Our teachers seldom have a heart-to-heart talk with us.		.762		
CONTRIBUTION				
My teacher struggles for my personal development.			.623	
My teacher struggles for my academic development.			.754	
My teacher struggles for intellectual development.			.736	
My teacher uses resources for student development.			.663	
I am totally depending on my teacher.			.660	

EYE-CONTACT				
I did not interact with my teachers in class.				.793
My teachers seldom pay attention to me in class.				.743
I do not have much contact with teachers outside class.				.804
I have little contact with my teachers except when necessary.				.739
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.				
a. Rotation converged in 6 iterations.				

- **1st component- Approachability:** In this component, there are 14 items and the highest loading value is for 'My teacher motivates me' (.652).
- **2nd component- Communication:** These are 4 items and the highest loading value is for 'Our teachers seldom have a heart-to-heart talk with us' (.762).
- **3rd component- Contribution:** These are 5 items and the highest loading value is for 'My teacher struggles for my academic development' (.754).
- **4th component- Eye-contact:** These are 4 items and the highest loading value is for 'I do not have much contact with teachers outside class' (.804).

IMPLICATIONS

- Positive relationships between students and teachers are characterized by qualities such as closeness, care, trust, respect, safety, honesty, fairness, openness, support, encouragement, availability, and approachability.
- Conversely, adverse interactions may result in students becoming disengaged, experiencing academic underachievement, and feeling emotionally distressed, all of which hinder their overall development.
- Initially, efforts are made to merge these perceptions, distinguishing between emotional and supportive aspects, and organizing them into potential overarching dimensions.
- According to research, students who believe their teachers are encouraging and kind are more likely to attend class regularly, turn in assignments on time, and participate fully in class activities.

CONCLUSION

In summary, this study emphasizes that the student-teacher relationship holds equal importance to the teaching and learning processes. The establishment of a positive bond between teachers and students has the potential to ignite a lasting passion for learning. The student's engagement in class and sense of belonging are significantly influenced by their relationship with their teachers.

The primary objective of this paper was to provide an overview of research on the Teacher-Student Relationship in higher education. The findings of this study highlight the relevance of considering the Teacher-Student Relationship as a crucial factor in higher education, given its measurable impact on elements contributing to students' academic success, including achievement, retention, course satisfaction, and learning strategies. The study came to the conclusion that while interpersonal conflicts might impair academic achievement, good relationships between students and teachers have a major impact on students' academic performance and foster a healthy classroom atmosphere.

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IMPACT OF SOCIAL MEDIA IN OUR DAILY LIVES

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ABSTRACT

Everyday life is greatly influenced by social media, especially in the areas of social connections, productivity, and communication. 160 participants from a range of age and socioeconomic backgrounds participated in the survey, which examined social media usage trends and their implications for productivity, education, entertainment, and health. With 74.4% of respondents emphasizing social media's function in education and 68.1% utilizing it for amusement, the results show that social media is an effective communication medium. Social media use is dominated by well-known platforms like youtube, Instagram, and whatsapp; 86.3% of respondents said they depend on whatsapp to remain in touch. 38.1% of participants reported frequent Adverse impacts on physical and mental health, including sleep disturbances and eye strain, despite 51.2% of individuals believing social media has a modest impact on productivity. Relationships are also impacted by social media, as 22.5% of respondents say it improves relationships and 38.1% say it keeps them in touch with friends and family. But according to 30.6% of respondents, social media has altered the character of their connections. Not with standing these difficulties, 62.5% of participants acknowledged the significance of social media as an information source access and Information retention. This demonstrates the multifaceted nature of social media, as its advantages in entertainment, education, and communication are offset by possible health hazards and shifting societal dynamics. The results point to the significance of using social media with consideration, weighing its benefits against methods to reduce its drawbacks.

Keyword: *Social Media, Communication, Education, Social Media Usage, Digital Engagement, Screen Time.*

INTRODUCTION

RSocial media has evolved into a fundamental element of daily living, acting as a dynamic platform that connects people across the globe. It facilitates communication with family, friends, and colleagues, enables the exchange of information, and promotes the discovery of new ideas.

Popular platforms like Twitter, Instagram, LinkedIn, and Facebook, play a vital role in knowledge creation and exchange, fostering meaningful connections and conversations among users. These platforms serve as valuable tools for both personal communication and professional networking, helping individuals stay informed, participate in diverse communities, and express their thoughts (**Omar & Ondimu, 2024**).

Beyond fostering social interactions, social media also exerts a considerable influence on key sectors such as education, business, and entertainment. It is essential in how people access information, share ideas, and engage in learning processes. Social media has transformed daily tasks, offering both advantages and challenges. While it enhances communication, facilitates access to information, and provides entertainment, it poses potential drawbacks, such as excessive screen time, distractions, and privacy concerns (**Saini & Mir, 2023**).

Social media allows college students to share data, information, and ideas, making it an interactive platform that promotes the generation of new knowledge. Despite its benefits, excessive social media use among college students can negatively affect their educational performance. This study seeks to investigate the extensive role of social media in contemporary life, focusing on its influence on communication education, health, and productivity across diverse groups of people. The study seeks to understand the advantages and challenges of social media use, highlighting its role in shaping contemporary lifestyles and offering insights into how individuals can navigate its influence in a balanced and responsible manner (**Astleitner, 2024**).

OBJECTIVES:

- To analyze the influence of social media on communication patterns among diverse groups (students, professionals, etc.)
- To investigate social media's influence on academic performance and knowledge exchange.
- To assess the impact of social media on workplace productivity and relationships.

REVIEW OF LITERATURE:

The rise of mobile technology and the rapid growth of social media have drastically changed the way individuals interact and communicate. Among students, social media usage has surged, leading to ongoing participation in various online activities. According to **Prithwiraj Das and Dhanujakshi A. (2020)**, this increasing dependence on social media brings both positive and negative consequences for students. Excessive engagement with social media can contribute to the formation of addictive behaviors, causing students to prioritize online engagement over academic responsibilities. This overuse, driven by the pursuit of social validation, often detracts from their academic performance. **Das and Dhanujakshi (2020)** further emphasize that extended time spent on social media is linked to reduced academic productivity, which underscores the importance of managing social media use. Despite these challenges, the research also points to some benefits, such as the improvement of communication skills, access to information, and the strengthening of social connections. However, the negative outcomes, including academic neglect

and mental health concerns, tend to overshadow these advantages. The findings suggest that while social media can be a useful tool for learning and engagement, its misuse can negatively impact students' academic success. The authors recommend that students take a more mindful approach to social media use, ensuring that they maintain focus on their academic obligations and overall well-being (Prithwiraj Das et al., 2020).

Owusu-Acheaw and Larson (2015) investigated how Social media activity affects the educational performance of students in Ghanaian higher education, focusing on Koforidua Polytechnic. The research, based on data gathered through questionnaires, revealed that most participants were familiar with various social media platforms and owned mobile phones with internet access. A substantial number of respondents reported frequent use of these platforms, spending ranging from thirty minutes to three hours daily. The study revealed that social media usage negatively impacted students' academic performance, showing a direct link between increased time spent on social media and decreased academic achievement.

METHODOLOGY:

This survey explores the impact of technology on society in the domains of democracy, health, and social media. A random sampling method is used to ensure inclusivity, with a target sample size of 160 respondents from diverse demographic backgrounds. Participants are selected from various sources, including online platforms and public spaces, ensuring broad representation. Data is collected via online surveys. The survey includes structured questions to capture participants' perceptions and experiences regarding technology's influence on daily life. Data analysis involves both quantitative methods (statistical tools) and Qualitative analysis (pattern-based examination of open-ended responses) to reveal trends and insights.

Target Population	Our study encompasses individuals from various demographic backgrounds, spanning all age groups and socio-economic statuses.
Sampling Method:	We utilize random sampling, ensuring that participants are chosen without any specific exclusion criteria. This approach guarantees a broad representation of society.
Calculating Sample Size:	The sample size was carefully determined using statistical techniques to ensure it accurately represents the target population while remaining manageable for analysis. A total of 160 respondents were chosen to maintain a balance between practical feasibility and statistical reliability.
Survey Questionnaire:	We have designed a thorough survey questionnaire to investigate how technology influences society in the realms of democracy, health, and social media. This questionnaire comprises structured questions aimed at capturing participants' perspectives, experiences, and behaviors related to technology usage and its impact on daily life.
Questionnaire Design:	Developed a comprehensive questionnaire covering various aspects of peer pressure within the domains of democracy, health, and social media. Employed A combination of Likert scale questions, multiple-choice questions, and open-ended questions to gather both quantitative and qualitative data.

Distribution of the Questionnaire:	Utilized google Forms for electronic distribution to ensure ease of access and anonymity. Shared the survey link across diverse platforms including social media, email, and relevant online forums.
Data Collection:	Encouraged respondents to complete the survey within a designated time frame to ensure timely data collection. Sent periodic reminders to maximize response rates and gather a sufficient number of responses.
Data Analysis:	Employed statistical tools to analyze quantitative data and identify patterns and trends within each domain. conducted thematic analysis of qualitative data collected from open-ended questions questions to extract key themes and insights relevant to peer pressure in democracy, health, and social media contexts.

ANALYSIS AND INTERPRETATION OF DATA:

TABLE No. 1 - Age group

Particular	No. of respondents	Percentage
Below 18	11	6.9%
18 – 20	88	55%
20 – 21	2	1.2%
21 – 30	51	31.9%
31 – 40	4	2.5%
41 – Above	4	2.5%
Total	160	100%

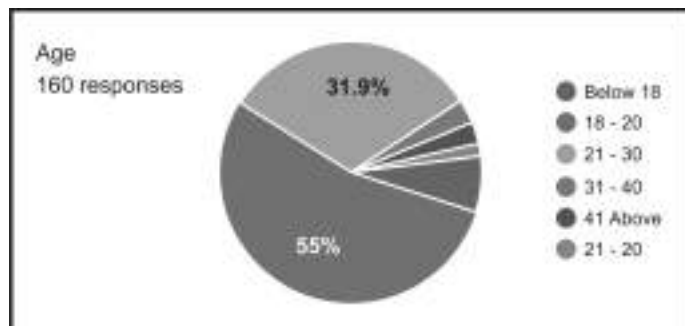
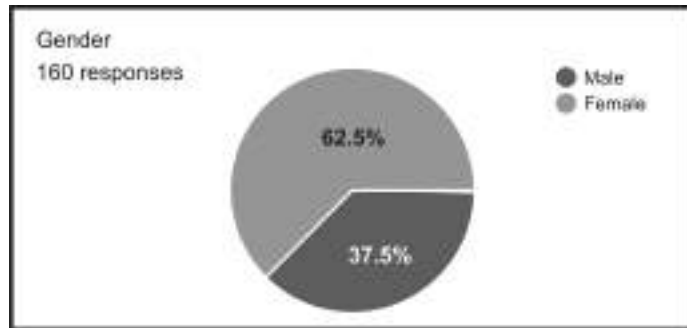


Chart - 1

Inference: Out of 160 total respondents, 55% are aged 18-20 years, representing the largest age group. Meanwhile, 31.9% are aged 21-30 years, forming the second-largest group. Respondents below 18 years account for 6.9%, while both the 31-40 years and 41+ years categories contribute 2.5% each. These findings indicate a significant concentration of respondents in the 18-20 years age group, with notable representation across other age ranges.

TABLE No. 2 - Gender

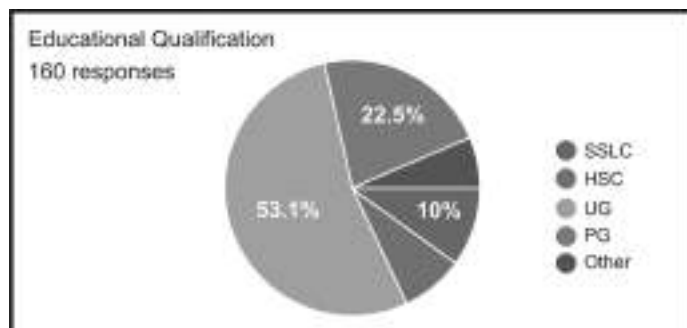
Particular	No. of respondents	Percentage
Male	60	37.5%
Female	100	62.5%
Total	160	100%

**Chart - 2**

Inference: Out of 160 total respondents, 62.5% are male (100 individuals), representing the majority of the participants. Meanwhile, 37.5% are female (60 individuals), reflecting a smaller but significant portion of the survey respondents. These findings highlight a predominance of male participants in the survey while ensuring gender diversity.

TABLE No. 3 - Educational qualification

Particular	No. of respondents	Percentage
SSLC	16	10%
HSC	13	8.1%
UG	85	53.1%
PG	36	22.5%
Other	10	6.3%
Total	160	100%

**Chart - 3**

Inference: Out of 160 total respondents, 53.1% have an undergraduate qualification (85 individuals), making it the largest group. 22.5% have a postgraduate qualification (36 individuals), 10% have SSLC (16 individuals), 8.1% have HSC (13 individuals), and 6.3% have other qualifications (10 individuals). These findings show that the majority of respondents hold an undergraduate degree, with significant representation from other qualification levels as well.

TABLE No. 4 - Occupation

Particular	No. of respondents	Percentage
Student	113	70%
Home maker	6	3.7%
Employed	37	23.1%
Unemployed	4	2.5%
Total	160	100%

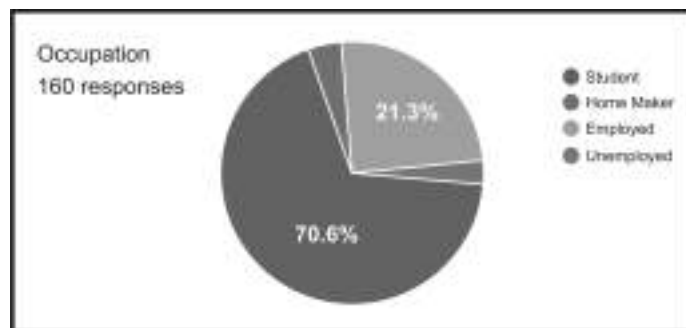
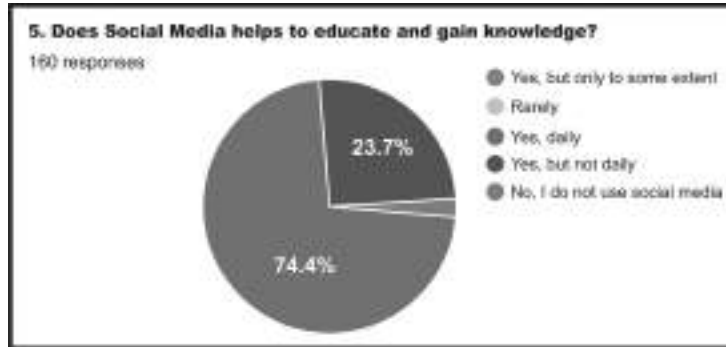


Chart - 4

Inference: Out of 160 total respondents, 70.6% are students, representing the largest group and indicating their significant participation in the survey. Additionally, 23.1% of respondents are employed, highlighting a substantial segment of working individuals. Meanwhile, 3.7% are homemakers, and 2.5% are unemployed, reflecting smaller proportions of these groups. These findings illustrate the dominance of students among the survey participants while showcasing diversity in occupation categories.

TABLE No. 5 - Social media helps educate and provide knowledge

Particular	No. of respondents	Percentage
Yes, significantly	119	74.4%
Yes, but only to some extent	38	23.7%
Rarely	3	1.9%
Total	160	100%

**Chart - 5**

Inference: Inference: Out of 160 respondents, 74.4% believe social media plays a significant role in education, 23.7% see it as somewhat beneficial, and 1.9% feel it contributes minimally. These results demonstrate a strong recognition of social media's potential as an educational tool, though its effectiveness is perceived differently across users. According to Ohara (2023), social Media can improve the way that education is communicated by providing opportunities for interaction and knowledge sharing, though it is essential to manage the associated risks. This is consistent with the study's findings, where the majority of participants viewed social media as an important educational resource, with varying opinions on its effectiveness.

TABLE No. 6 - The social media platforms that have been regularly used

Particular	No. of respondents	Percentage
Whatsapp	138	86.3%
Instagram	128	80%
Facebook	27	16.9%
Twitter	22	13.8%
LinkedIn	21	13.1%
YouTube	103	64.4%
Pintrest	18	11.3%
Telegram	38	23.8%
Snap chat	52	32.5%
Others	5	3.1%
Total	160	100%

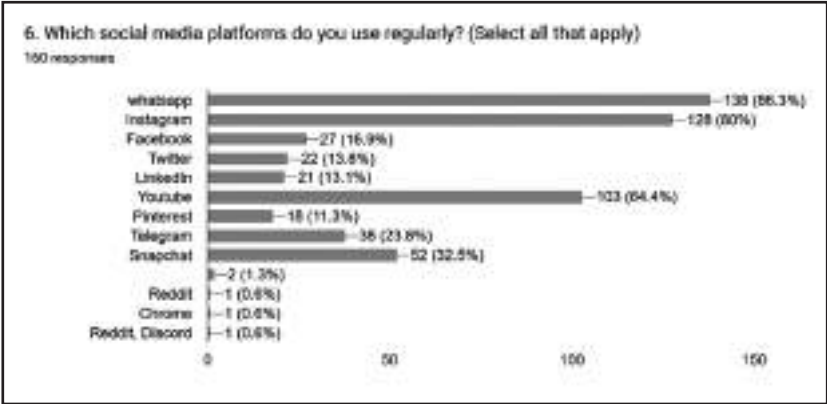


Chart - 6

Inference: Out of 160 respondents, 86.3% use WhatsApp, followed by Instagram (80%) and YouTube (64.4%). Social media is primarily used for entertainment (68.1%), news (63.1%), and connecting with others (48%), with smaller percentages for personal updates, networking, shopping, and education. This highlights social media’s dominant role in leisure and staying informed. Ohara (2023) noted that social media has rapidly developed into a crucial part of daily life, supporting its role in communication and interaction, as reflected in these findings.

TABLE No. 7 - The average daily social media usage per person

Particular	No. of respondents	Percentage
Less than 1 hour	25	15.6%
1 – 2 hours	52	32.5%
3 – 4 hours	39	24.4%
More than 4 hours	43	26.9%
No	1	0.6%
Total	160	100%

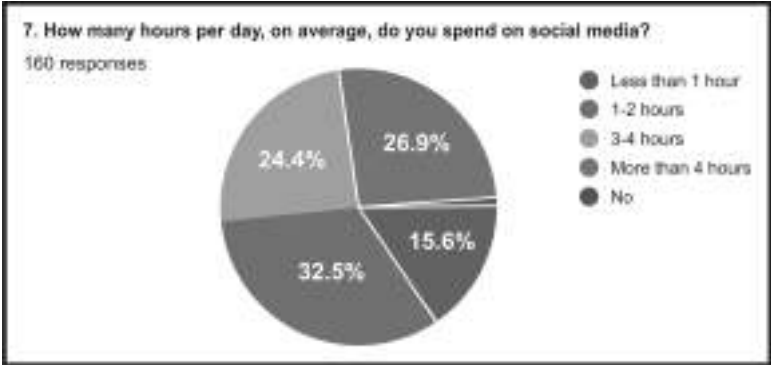


Chart - 7

Inference: Among 160 respondents, 32.5% report spending 1-2 hours on social media daily, the largest group, indicating moderate usage. Additionally, 26.9% use social media for more than 4 hours each day, highlighting a segment with high engagement. Meanwhile, 24.4% spend 3-4 hours daily, and 15.6% use it for less than 1 hour, showing varying levels of daily engagement. This is in line with global trends observed by Dixon (2024), who noted that the average daily time spent on social media worldwide was 143 minutes in 2024, down from 151 minutes the year before. This suggests a slight decline in global daily social media usage, reflecting similar variations in individual usage patterns.

TABLE No. 8 - The main purpose of social media usage

Particular	No. of respondents	Percentage
Connect with friends and family	109	68.1%
Sharing personal updates	48	30%
Networking	32	20%
Entertainment	101	63.1%
News consumption	57	35.6%
Shopping	33	20.6%
Others	6	0.01%
Total	160	100%

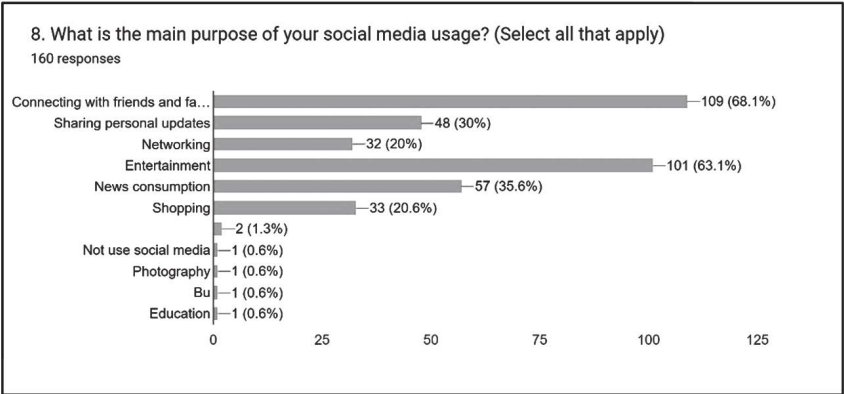
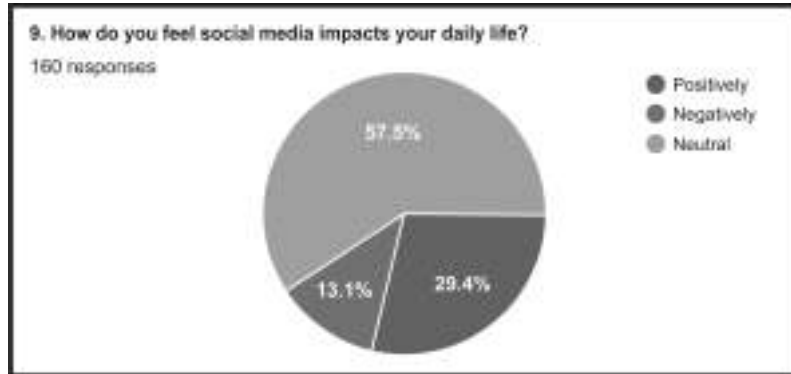


Chart - 8

Inference: Out of 160 total responses, the most common reason for using social media is connecting with friends and family (68.1%), followed by entertainment (63.1%) and news consumption (35.6%). Sharing personal updates accounts for 30%, while shopping and networking each represent 20.6% and 20%, respectively. Other purposes like photography and education were mentioned by a smaller percentage of respondents. This is consistent with findings from a recent survey reported by Oberlo, which revealed that 51.5% of internet users use social media to stay in touch with friends and family, and 39% use it to pass time. These results highlight the social and leisure-driven nature of social media usage, mirroring the primary reasons reported in this study.

TABLE No. 9 - The impact of social media on daily life

Particular	No. of respondents	Percentage
Positively	47	29.4%
Negatively	21	13.1%
Neutral	92	57.5%
Total	160	100%

**Chart - 9**

Inference: Out of 160 total respondents, 57.5% perceived social media as having a neutral impact on their daily life, while 29.4% felt it positively impacted their life. A smaller group of 13.1% believed that social media negatively influenced their daily life. These findings suggest that while many users acknowledge the role of social media in their daily routines, there is a significant portion that either sees no significant effect or perceives negative impacts, such as harassment or mental health concerns. This is in line with the findings of Rahman Sabbir, Rahim, Shapla, and Mohalder (2023), who state that social media, while offering various benefits, also presents risks, including cyberbullying. As Brown and Taylor (2022) highlighted, cyberbullying has led to increased mental health issues, particularly among teenagers, pointing to the darker side of social media. These insights underscore the need to consider both the positive and negative aspects of social media usage in daily life.

TABLE No. 10 - Experience reducing social media use during focused times

Particular	No. of respondents	Percentage
Yes	50	31.3%
No	110	68.8%
Total	160	100%

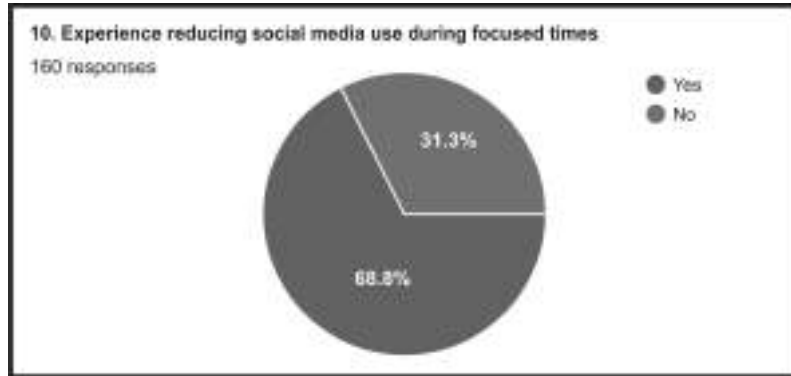


Chart - 10

Inference: Out of 160 respondents, 68.1% primarily use social media to stay connected with friends and family, 63.1% for entertainment, and 35.6% for news. Other purposes include sharing personal updates (30%) and engaging in shopping or networking (20.6% each). These results emphasize social media's major role in social interaction and leisure activities. According to the findings of van Wezel, Abrahamse, and Vanden Abeele (2021), who indicate that limiting social media usage can lead to improvements in emotional well-being and cognitive functioning. This supports the idea that while social media is widely used, periodic breaks might also offer significant benefits.

TABLE No. 11 - The impact of social media on mental or physical health and its frequency

Particular	No. of respondents	Percentage
Very frequently	54	33.8%
Frequently	61	38.1%
Occasionally	26	16.2%
Rarely	14	8.8%
Never	5	3.1%
Total	160	100%

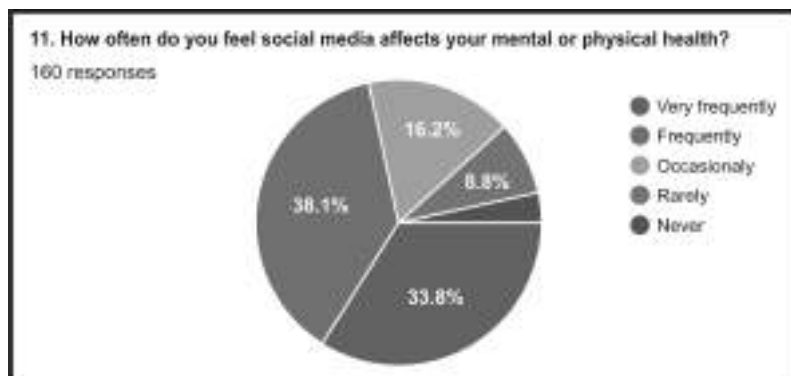


Chart - 11

Inference: Out of 160 respondents, 38.1% reported that social media frequently affects their mental or physical health, with 33.8% stating these effects are very frequent. Smaller groups reported occasional (16.2%) or rare (8.8%) impacts, and only 3.1% said social media never affects their health. These findings show varying degrees of social media's impact on well-being. According to Khalaf et al. (2023), who note ongoing concerns about social media's effects on mental health, highlighting both positive and negative influences.

TABLE No. 12 - Experiencing negative effects on daily life, such as increased screen time or distractions

Particular	No. of respondents	Percentage
Yes, frequently	51	31.9%
Yes, occasionally	70	43.8%
No, not really	24	15%
Not at all	15	9.4%
Total	160	100%

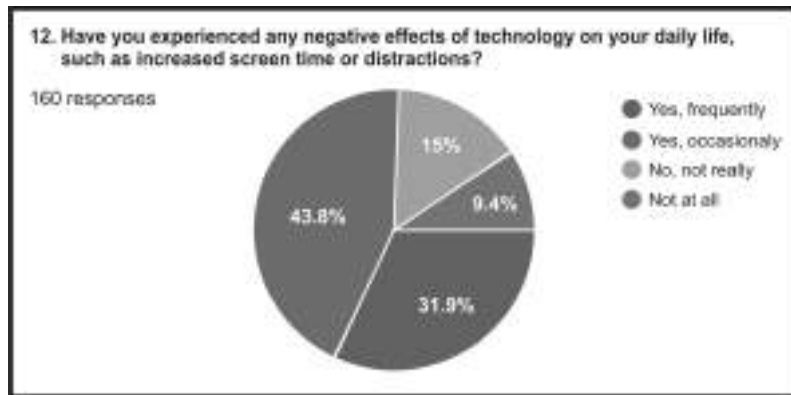


Chart - 12

Inference: Out of 160 respondents, 43.8% reported experiencing negative effects from increased screen time or distractions occasionally, while 31.9% reported frequent disruptions. A smaller portion (15%) stated they don't often experience these issues, and 9.4% indicated no negative impact. These findings highlight a significant portion of respondents experiencing disruptions due to screen time. According to Nakshine, Thute, Khatib, and Sarkar (2022) claim that prolonged screen time is associated with detrimental impacts on sleep patterns, psychological well-being, and physical health, with continuous exposure raising stress and anxiety levels.

TABLE No. 13 - Social media's impact on improving productivity

Particular	No. of respondents	Percentage
Yes, Significantly	38	23.8%
Yes, Somewhat	82	51.2%
No, not really	27	16.9%
Not at all	13	8.1%
Total	160	100%

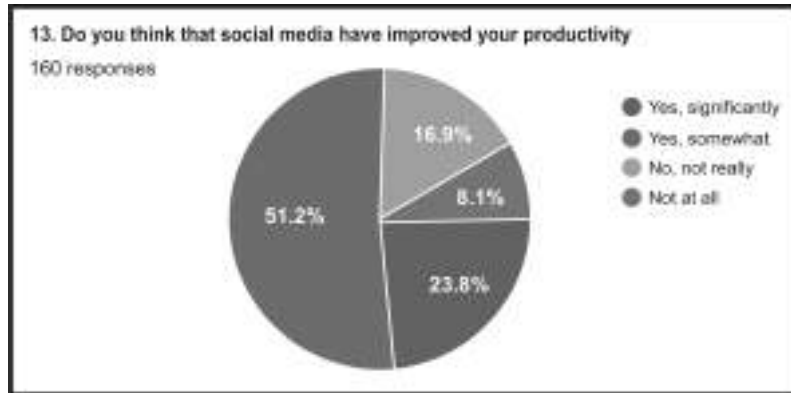


Chart - 13

Inference: Out of 160 respondents, 51.2% indicated that social media has somewhat enhanced their productivity, while 23.8% observed significant improvements. On the other hand, 16.9% felt that social media had little to no effect on their productivity, and 8.1% experienced no change at all. These findings suggest that while a majority believe social media contributes to their productivity, opinions on its effectiveness differ. According to Effectio.com emphasizes that social media's influence on productivity is often linked to the constant influx of notifications, which can hinder focus and diminish work efficiency. Additionally, according to the Pew Research Center, 77% of employees say that they utilize social media while at work, which raises the possibility that it might reduce focus and decrease productivity.

TABLE No. 14 - The impact of social media on relationships with friends and family

Particular	No. of respondents	Percentage
Strengthened relationships	36	22.5%
Made it easier to stay in touch	61	38.1%
Changed the nature of interactions	49	30.6%
No significant impact	14	8.8%
Total	160	100%

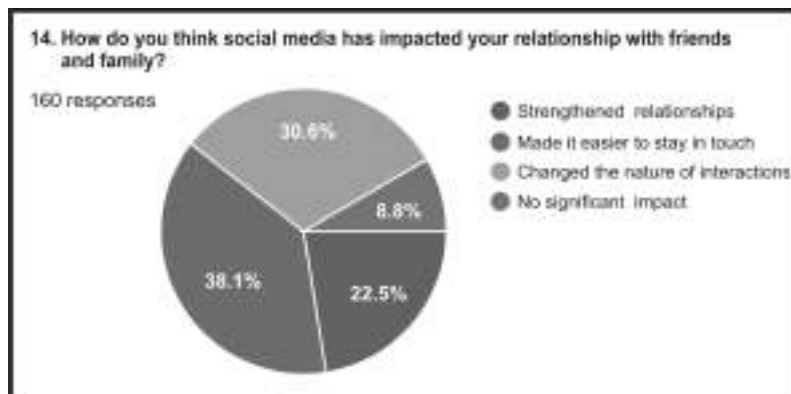


Chart - 14

Inference: Out of 160 total respondents, 38.1% felt that social media has made it easier to stay in touch with friends and family, emphasizing its role in enhancing communication. Additionally, 22.5% believed that social media has strengthened their relationships, indicating its positive impact on interpersonal connections. However, 30.6% mentioned that social media has altered the nature of their interactions, suggesting that it has changed the dynamics of how relationships are formed and maintained. Only 8.8% reported no significant impact. These findings highlight that while social media facilitates communication, it also introduces changes to relationship dynamics. According to Kumudwathi (2016), social media has transformed communication by making it easier to stay connected and engage with others. Platforms and messaging apps enable instant communication regardless of location, aligning with the findings that social media plays a pivotal role in maintaining personal connections.

TABLE No. 15 - Specific entertainment apps that have significantly improved daily life

Particular	No. of respondents	Percentage
Yes	51	31.9
No	100	62.5
Chatting	1	0.6
Whatsapp	1	0.6
Pintrest	1	0.6
Youtube	1	0.6
Chatgpt	1	0.6
Educational related apps	1	0.6
Kindle	1	0.6
Duolingo	1	0.6
Google translate	1	0.6

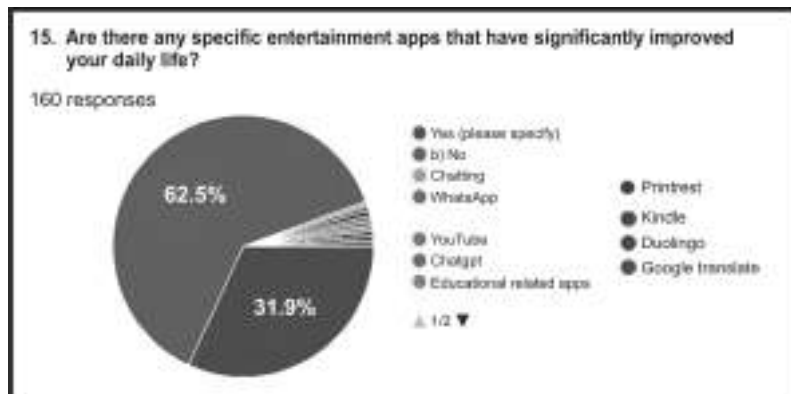


Chart - 15

Inference: Out of 160 respondents, 31.9% reported that specific apps positively influenced their daily lives, emphasizing their beneficial role. Apps like WhatsApp, YouTube, ChatGPT, Kindle, Duolingo, Google Translate, and various educational tools each received 0.6% of mentions. These applications appear to enhance communication, learning, and personal growth. On the other hand, 62.5% of respondents did not identify any particular app as significantly

improving their daily routines. These results suggest that while some individuals recognize the value of these apps, many do not view them as having a major effect on their everyday activities. Macias (2024) states that Mobile applications are become a necessary component of everyday life, offering a variety of advantages, including boosting productivity and supporting health and education. This perspective aligns with the survey’s findings, where some apps were appreciated for their contributions to communication and personal development, although not all participants reported a noticeable impact.

TABLE No. 16 - The aspects of life most influenced or dependent on social media

Particular	No. of respondents	Percentage
Communication	112	70
Work/Professional tasks	59	36.9
Education	82	51.2
Health care	39	24.4
Entertainment	79	49.4
Transportation	29	18.1

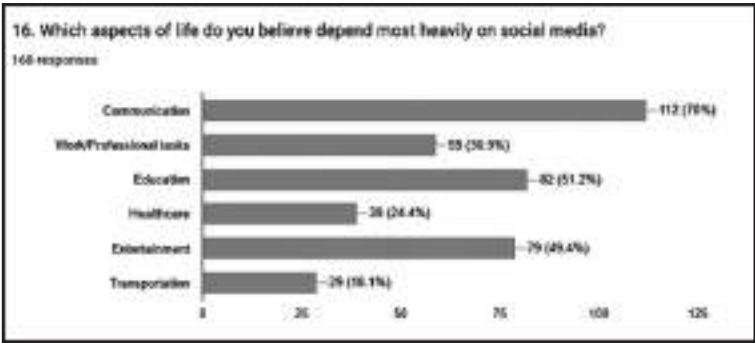
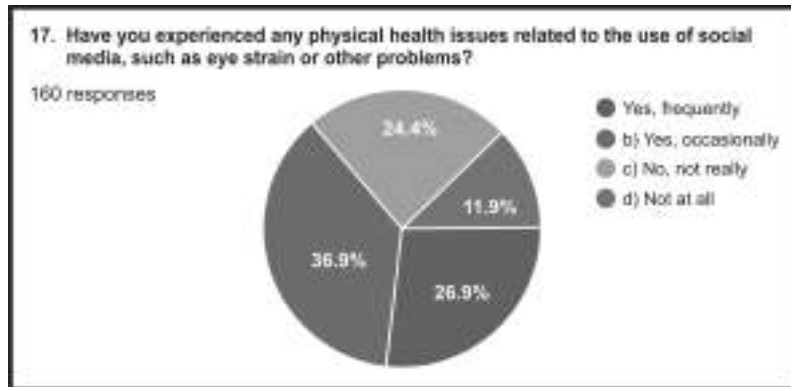


Chart - 16

Inference: Out of 160 respondents, 51.2% reported that communication is the area of their life most reliant on social media, underlining its key role in maintaining connections. Entertainment also emerged as an important factor, with 49.4% viewing social media as a vital tool for leisure. Furthermore, 36.9% recognized the importance of social media in their professional lives, and 24.4% noted its relevance for educational purposes. Smaller percentages, including 18.1% for healthcare and 16% for transportation, reported significant influence from social media in these fields. These results emphasize that social media predominantly impacts communication and entertainment, with noticeable effects on work and education. According to Saini and Mir (2023) explain that social media plays a major role in improving the academic experience by fostering real-time communication, collaboration, and access to resources. While the advantages are clear, the authors also discuss the challenges, such as distractions and privacy issues, which align with the survey findings that highlighted social media’s crucial role in various aspects of life, particularly in communication and entertainment.

TABLE No. 17 - Experiencing physical health issues related to the use of social media, such as eye strain or other problems

Particular	No. of respondents	Percentage
Yes, frequently	43	26.9
Yes, occasionally	59	36.9
No, not really	39	24.4
Not at all	19	11.9

**Chart - 17**

Inference: Out of 160 respondents, 36.9% reported experiencing physical health issues, such as eye strain, due to social media use on an occasional basis. Additionally, 26.9% experienced such issues frequently, indicating that a significant portion of individuals are impacted by these health concerns. While 24.4% did not report significant problems, and 11.9% had no issues at all, the majority acknowledged experiencing some physical health effects. These results suggest that physical health issues, particularly eye strain and similar conditions, are common among social media users, with frequent or occasional occurrences being the most typical. Devi and Singh (2023) highlight that excessive Eye strain and back, shoulder, and neck pain are among the physical discomforts that can result from excessive screen time. Along with the survey's findings that social media use can exacerbate mental and physical health issues, they also address the hazards to mental health, including increased anxiety and depression, as well as the wider detrimental effects on general wellbeing.

TABLE No. 18 - Physical health issues personally experienced as a result of social media use

Particular	No. of respondents	Percentage
Eye strain or discomfort	89	55.6
Neck or back pain	52	32.5
Headaches or migraines	49	30.6
Sleep disturbances	57	35.6
None of the above	32	20

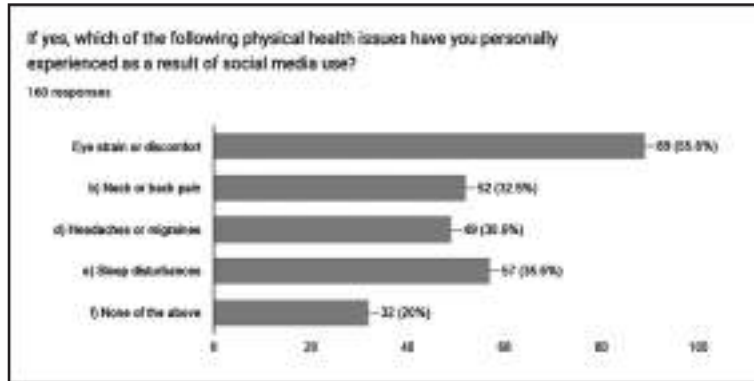


Chart - 18

Inference: Out of 160 respondents, 55.6% experienced eye strain or discomfort as the most frequent physical health issue related to social media use. Additionally, 35.6% reported sleep disturbances, 32.5% had neck or back pain, and 30.6% experienced headaches or migraines. However, 20% of respondents did not report any physical health issues. These results suggest that extended use of social media is linked to various physical health problems, with eye strain being the most prevalent complaint among users. According to Nakshine et al. (2022), increased screen time negatively affects physical and mental health, leading to problems such as sleep disruptions, decreased physical activity, and eye strain. These medical issues, in turn, contribute to poor dietary choices and rising obesity rates. This finding supports the survey results, where respondents also indicated that prolonged social media usage impacts their physical well-being.

TABLE No. 19 - The overall perception of social media as a force for positive change in society or as a source of caution due to its impacts.

Particular	No. of respondents	Percentage
Social media brings positive change	38	23.8%
Social media has negative impacts	48	30%
I have mixed opinions about social media	61	38.1%
I am uncertain about social media impacts	13	8.1%
Total	160	100%

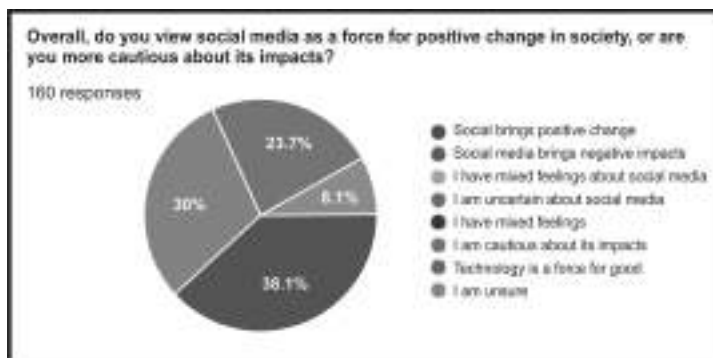


Chart - 19

Inference: Out of 160 respondents, 38.1% had a balanced perspective on social media, acknowledging both its benefits and drawbacks. Additionally, 30% believed social media had a negative impact, demonstrating a cautious stance toward its effects. On the other hand, 23.8% viewed it as a tool for positive change, highlighting its advantages. A smaller portion, 8.1%, expressed uncertainty regarding its overall impact. These results suggest that while some individuals recognize the positive role of social media, a significant number remain wary or unsure of its influence. According to Hike Education Pvt. Ltd. (2025), People can interact with others in society by sharing their passions and producing interesting material on social media sites. However, the paper notes that these platforms have drawbacks and can have both beneficial and detrimental effects on people's lives.

CONCLUSION:

Social media has entered every aspect of our lives, affecting our communication, information-gathering, and entertainment habits. The survey findings highlight the widespread use of platforms like WhatsApp, Instagram, and YouTube, with many respondents recognizing the positive effects of these platforms on education, productivity, and staying connected with loved ones. However, while social media facilitates valuable social interactions and enhances learning opportunities, the research also reveals significant concerns. Long periods of screen time are associated with physical health problems such as eye strain and sleep disruptions, which a significant portion of participants reported having. Additionally, mental health concerns were frequently raised, with some individuals reporting negative emotional effects and stress from excessive use. Despite these challenges, a majority of respondents still perceive social media as a useful tool for academic and personal development. People's varied experiences and views of social media are reflected in the range of opinions they have about its impact, which range from favorable to neutral to negative. In the end, the study highlights the necessity of using social media in a thoughtful and balanced manner. People can maximize social media's positive advantages while reducing its negative effects on their physical and mental health by encouraging responsible participation and being mindful of its possible downsides. In summary, while social media plays a significant role in modern society, its responsible use is essential for ensuring a healthier and more meaningful digital experience.

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INFLUENCE OF FAST FOOD CONSUMPTION ON LIFESTYLE AND WELL BEING AMONG ADOLESCENTS

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ABSTRACT

Fast food intake and its effects on teenage health and lifestyle, with an emphasis on dangers to physical and mental health such as obesity, type 2 diabetes, heart disease, and digestive problems. Along with assessing teenagers' knowledge of the health hazards connected to fast food, the study also looks at how fast food affects lifestyle decisions, physical activity, and mental health. The results indicate that 94% of respondents cited speed and convenience as the main draws of fast food, making these factors the main drivers of consumption. Nonetheless, the study shows that its detrimental consequences on health are widely recognized. The majority of respondents acknowledged that consuming too much fast food increases the risk of obesity (88%) and type 2 diabetes (46%). Furthermore, 76% of respondents reported experiencing energy dumps after consuming fast food, and 80% connected excessive intake to an elevated risk of depression. Deficits in certain nutrients, including vitamins and fiber, were also noted; 50% of respondents thought these gaps existed. With 82% citing disturbed sleep as a frequent consequence, the study also emphasizes how fast food affects physical activity and sleep patterns. The harmful effects of fast food could be lessened by increased physical exercise, according to 72% of participants. The study concludes by highlighting the necessity of greater physical activity, healthier substitutes, and improved nutrition education in order to mitigate the negative impacts of fast food. These actions can lower the risk of lifestyle- related diseases in teenagers and encourage better eating habits.

KEYWORDS: *Eating habits, public health, convenience, nutrition, obesity, heart disease, mental health, consumption of fast food.*

INTRODUCTION:

FAST FOOD

Fast food first appeared in the United States at the beginning of the 20th century. It is described as food prepared and served rapidly, with short wait periods for customers and uniformly between locations. Because it was convenient and reasonably priced, it became very popular **(Smith, 2008)**. By using mass manufacturing techniques, major fast food franchises such as McDonald's, Burger King, and KFC transformed the market by providing a menu that could be made and served in a matter of minutes **(Jones & Smith, 2010)**.

Fast food's ascent was fueled by the growing need for convenient, quick meals, especially in cities **(Thompson, 2012)**. Fast food restaurants usually serve a small number of mass-produced, quickly-served foods, such as pizza, fried chicken, burgers, fries, and soft drinks **(Brown, 2014)**. Despite increased knowledge of the negative health effects of fast food, such as its role in obesity and other chronic illnesses, the sector has grown internationally and is now a national staple in many countries **(Clark & Adams, 2016)**.

IMPACT ON HEALTH:

OBESITY

In the public discourse surrounding obesity, it is sometimes claimed that the prevalence of fast food is a contributing reason to the rising obesity rates. According to **Abdullah (2007)**, **McBride (2008)**, **Mair et al. (2005)**, and other policymakers, several cities have responded by restricting the availability or content of fast food or by mandating that the calorie content of meals be posted.

Obesity has become one of the main public health issues facing the US in recent decades. Nearly one-third of adult Americans were considered obese in 2009, according to the centres for Disease Control and Prevention (CDC), if their body mass index (BMI) was 30.0 kg/m² or above **(CDC, 2010)**. Because obesity is linked to a number of comorbidities, its rising prevalence is cause for serious concern. Obese people are far more likely to suffer from heart disease, stroke, asthma, sleep apnea, hypertension, hyperlipidemia, and type 2 diabetes **(Anderson & Butcher, 2006; Wang et al., 2011)**.

CARDIOVASCULAR DISEASE

Fast food's widespread availability and consumption have been connected to a higher risk of type 2 diabetes, obesity, and other cardiometabolic conditions like cardiovascular disease. Fast food intake leads to poor diets that are high in calories but lacking in vital nutrients, especially those heavy in fats, sweets, and processed carbs. Fast food consumption has been linked to increased rates of overweight and obesity, and as these illnesses are becoming more common, hospital admissions for acute coronary heart disease have increased **(Micha et al., 2017)**.

TYPE 2 DIABETES

Fast food's high sugar content, particularly that of sugary drinks, causes insulin resistance, which in turn increases the risk of type 2 diabetes. Additionally, a lot of fast-food items have a high

glycemic index, which causes blood sugar levels to jump quickly. This can make diabetes worse (**Ludwig et al., 2001**). Therefore, public health campaigns that try to cut back on fast food intake may be very important in reducing obesity and preventing conditions like type 2 diabetes. The existing study on the topic does, however, have some significant gaps. Data from high-risk minority ethnic groups, such as South Asians, and European people, who may be especially vulnerable to the negative health impacts of fast food, are specifically lacking (**Hu et al., 2004**). The precise association between eating fast food and the onset of type 2 diabetes is also not well studied, especially when it comes to a variety of demographic groups (**Micha et al., 2017**).

MENTAL HEALTH

Fast food and highly processed foods are quick to prepare, portable, and convenient, but they frequently contain artificial chemicals, fillers, low-quality flour, and high sugar content. These components may have detrimental effects on mental and physical health. The eating of fast food in excess, together with a poor diet, is a major risk factor for the loss of mental health. What we consume has a direct effect on how we feel and think. Fast food-influenced dietary patterns have been connected to a number of mental health conditions, such as anxiety and depression. These patterns usually feature a high intake of processed foods and a low intake of fruits and vegetables. Due to the lack of vital nutrients required for the best possible brain health, studies indicate that eating fast food may also affect cognitive performance (**Jacka et al., 2010**).

According to **Kiecolt-Glaser et al. (2015)**, diets heavy in processed foods and low in nutritional value may interfere with the brain's capacity to absorb information and control mood, which could result in long-term mental health issues.

IMPACT ON LIFESTYLE:

PHYSICAL ACTIVITY

Fast food's ease of usage promotes sedentary behavior since it's frequently eaten on the run, which reduces possibilities for exercise. Furthermore, fast food restaurants tend to be situated close to residences, places of employment, and educational institutions, making them more easily accessible and encouraging a more sedentary way of living. Because alcohol is so easily accessible, consumption has increased, which, when combined with sedentary behavior, is causing public health concerns to grow. Along with other sedentary hobbies like watching television, playing video games, or using computers, many people eat fast food.

This multitasking behavior further decreases the amount of time spent exercising and engaging in physical activity, which accelerates the transition to a sedentary lifestyle (**Barker et al., 2017**). According to research, eating a lot of fast food and engaging in these inactive activities can lead to weight gain and poor physical health because of the detrimental consequences of a diet heavy in calories, fats, and carbohydrates as well as a lack of exercise (**Thompson et al., 2007**).

SOCIAL AND ECONOMIC FACTORS

In many cultures, family meals, home cooking, and shared food preparation are an essential part of social life. However, as fast food becomes more popular, it can replace these traditional food practices. This shift can erode cultural food knowledge and the art of cooking, as well as lead to the loss of recipes and customs passed down through generations (**Mullan, 2015**).

DIETARY HABITS

Fast food, due to its convenience and affordability, often replaces traditional home-cooked meals. This change results in a diet that is low in vital nutrients like fiber, vitamins, and minerals and heavy in processed foods, harmful fats, and refined sweets. As a result, individuals consuming fast food frequently may develop poor eating habits that persist into adulthood (**Jernigan et al., 2012**).

The availability of ready-made fast food can lead to a decline in cooking skills, especially among younger generations. Over time, reliance on takeout or fast food can diminish the desire or need to prepare balanced, homemade meals, contributing to an overall loss of knowledge about nutrition and cooking.

Fast food portions are often larger than what is necessary for a balanced meal, contributing to overeating. Instead of paying attention to the body's natural hunger signals, these larger portions may promote the habit of eating until full, which can result in an excessive intake of calories (**Dunlap, S. 2012**).

TIME MANAGEMENT:

One of the primary reasons for the growing reliance on fast food is its convenience. People living fast-paced lives may turn to fast food to save time. However, while fast food offers immediate convenience, it often sacrifices nutritional value, contributing to long-term health issues. When people emphasize speed above preparing healthier, home-cooked meals that take more effort, this might eventually result in bad time management behaviors (**Buchanan et al., 2017**).

The popularity of food delivery apps has further increased the accessibility of fast food. The convenience of ordering food to be delivered right to one's door encourages people to prioritize convenience above health, as they may opt to eat fast food more often rather than cooking wholesome meals. It also encourages a culture of instant gratification, where people prioritize the immediate satisfaction of their cravings over long-term well-being (**Rao et al., 2020**).

PSYCHOLOGICAL IMPACT:

Fast food can become a form of comfort or stress relief, leading to emotional eating. High-sugar, high-fat foods trigger the release of "feel-good" hormones, such as dopamine, which can make people turn to fast food when they feel stressed, anxious, or down. Over time, this emotional reliance on food can develop into unhealthy eating patterns and contribute to weight gain and other health issues (**Van Strien, 2018**).

Many fast-food items contain ingredients that can be addictive, such as sugar, salt, and unhealthy fats. These ingredients can alter brain chemistry, making people crave fast food more frequently. This might result in habitual intake, which can make it harder to interrupt the pattern of unhealthy eating (**Van Strien, T. 2018**).

ECONOMIC IMPACT:

Fast food is frequently viewed as a quick and affordable choice; however, frequent fast-food consumption can have long-term health effects that increase medical expenses. Obesity, cardiovascular disease, and diabetes, all linked to fast food consumption, come with significant healthcare expenses. This economic burden can affect both individuals and healthcare systems (**Lichtenstein et al., 2006**).

Fast food is particularly prevalent in low-income communities, where it may be one of the few affordable food options available. Fast food's cheap accessibility in these places, along with the lack of healthier food options, can encourage unhealthy eating patterns and feed a vicious cycle of resource scarcity and ill health (**Dumanovsky et al., 2011**).

ENVIRONMENTAL IMPACT:

Fast food consumption has a notable environmental footprint, especially due to packaging. The reliance on single-use plastic, paper, and Styrofoam for packaging results in waste that ends up in landfills and oceans. The environmental impact extends beyond packaging, with the production of fast food itself contributing to deforestation, water consumption, and greenhouse gas emissions (**Graham-Rowe et al., 2014**).

Many fast-food chains rely on mass-produced, factory-farmed meats, which have significant environmental consequences. Large-scale meat production contributes to soil degradation, deforestation, and high water usage. This aspect of fast-food consumption ties directly into broader concerns about sustainability and environmental degradation (**Carlsson-Kanyama et al., 2017**).

OBJECTIVES OF THE STUDY:

- To examine the relationship between fast food consumption and physical health outcomes among adolescents.
- To assess the effect of fast food consumption on mental health and emotional well-being.
- To analyze the role of fast food consumption in shaping adolescents eating habits and lifestyle choices.
- To evaluate the impact of fast food consumption on adolescents' sleep patterns and energy levels.
- To explore the socio-economic and environmental factors influencing fast food consumption among adolescents.

REVIEW OF LITERATURE:

- Regular fast food consumption has been repeatedly linked to weight gain and obesity; Stender et al. (2006) demonstrated that regular fast food consumption leads to excessive calorie intake, which fuels the growth in obesity, particularly among adolescents. **Smith et al. (2013)** found that frequent fast food consumption is a major contributor to poor eating habits that promote weight gain; and **Stender et al. (2006)** showed that a higher body mass index (BMI) and the prevalence of obesity in both adults and children are closely correlated with frequent fast food eating.
- Fast food consumption may be a major risk factor for type 2 diabetes and metabolic syndrome, according to a growing body of research. **Fung et al. (2009)** revealed that consuming fast food increases the risk of developing insulin resistance, which is a key factor in the development of type 2 diabetes. They noted that the high glycemic index of fast food contributes to blood sugar spikes, leading to long-term health issues. In a similar vein, **Alhazmi et al. (2014)** found that eating fast food, especially processed foods that are heavy in fats and sugars, is linked to metabolic syndrome, which is characterized by high blood sugar, hypertension, and abdominal obesity.

- Furthermore, **Kant et al. (2015)** discovered that because of nutrient inadequacies and the disturbance of the gut-brain axis, poor eating patterns—including a high intake of fast food are associated with increased rates of anxiety and depression.
- Fast food consumption is often associated with poor lifestyle behaviors, including low physical activity and irregular sleep patterns. **Neumark-Sztainer et al., (2010)** observed that adolescents who frequently eat fast food tend to be more sedentary, spending more time in front of screens and engaging in less physical activity. This sedentary lifestyle exacerbates the negative health effects of poor eating habits.
- Nutrition education has been highlighted as a significant intervention in minimizing the impact of fast food on health. According to **Sacks et al. (2013)**, who assessed the efficacy of nutrition education initiatives, increasing public knowledge of the dangers of fast food can dramatically lower consumption. It has been demonstrated that school-based nutrition education initiatives aimed at teenagers in particular enhance eating habits.

RESEARCH METHODOLOGY:

Research design- Exploratory research

Sampling- Convenience sampling

Sample size- 50 respondents

Period of study- 15 days

Data collection:

- Primary data: Structured questionnaire
- Secondary data: Journal and websites

Tools of analysis:

1. Percentage analysis

LIMITATIONS OF THE STUDY:

- 1) The study focuses only on among adolescents.
- 2) The survey was conducted only in Chennai city. Hence the result from the study may or may not be applied in other areas.
- 3) Only fast food consumption people are focused on this survey.

ANALYSIS AND INTERPRETATION OF DATA:

Table No: 1 Gender

Particulars	No. of respondents	Percentage
Male	3	6%
Female	47	94%
Total	50	100%

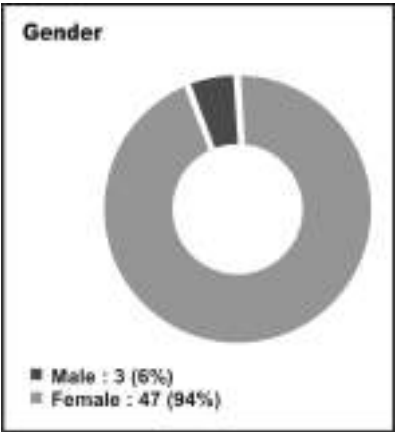


Chart No: 1

INFERENCE :

From the above table it can be inferred that female respondents are more when compared to male. Hence female users are more for Consumption of fast food according to the study. There are 47% female users and 6% male users.

Table No: 2 Age

Particulars	No. of respondents	Percentage
11-13	1	2%
14-16	9	18%
17-19	40	80%
Total	50	100%

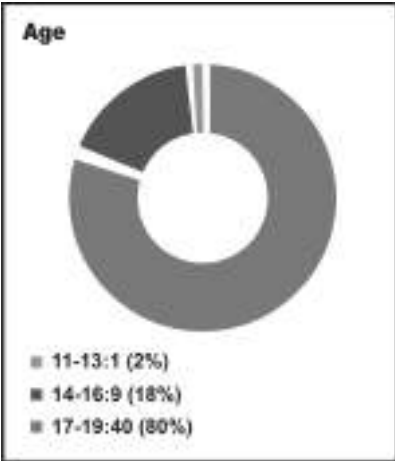


Chart No: 2

INFERENCE :

From the above table, it can be inferred that respondents aged 17-19 are more prevalent compared to other age groups. Hence, individuals aged 17-19 consume fast food more according to the study. There are 80% of respondents aged 17-19, 18% between ages 14-16, and 2% between ages 11-13.

Table No: 3 What is the primary reason for the popularity of fast food?

Particulars	No. of respondents	Percentage
Expensive Ingredients	3	6%
Quick and convenient	47	94%
Requires cooking skills	-	-
Nutritionally balanced	-	-
Total	50	100%

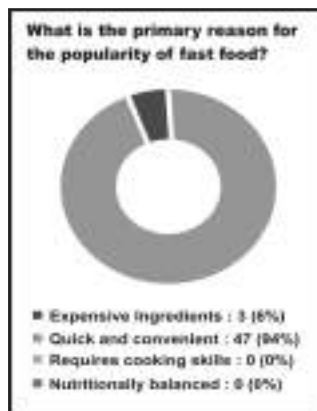


Chart No: 3

INFERENCE :

Fast food's appeal is influenced by a number of factors, such as taste preferences, pricing, convenience, and shifting lifestyles. The study demonstrates how the widespread use of fast food has been greatly influenced by hectic schedules, strong marketing, and the need for quick, reasonably priced meals (Liu, P et al.,2020).

The above table suggests that the main factor driving teenage fast food consumption is its speed and convenience, with pricey ingredients playing a less important role. While 6% pick it because of the cost of the ingredients, 94% of adults and teenagers prefer it because it's quick and convenient.

Table No: 4 Which health problems can arise from consuming too much fast food?

Particulars	No. of respondents	Percentage
Improved cardiovascular health	6	12%
Increased risk of obesity	44	88%
Lower blood pressure	-	-
Enhanced immunity	-	-
Total	50	100%

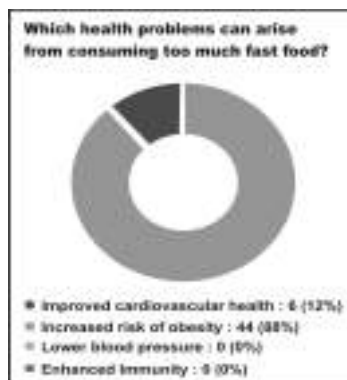


Chart No: 4

INFERENCE :

This article examines a number of studies that show a connection between frequent fast food consumption and a number of chronic illnesses, such as an increased risk of type 2 diabetes, obesity, and cardiovascular disorders. It emphasizes how many fast food items include large amounts of calories, fats, carbohydrates, and sodium, all of which can have detrimental effects on one's health if consumed frequently (Singh, G. M., Gubelmann, C., & Heller, L., 2016).

From the above table, it indicates that the majority, 88%, of respondents believe excessive fast food consumption can lead to an increased risk of obesity. A smaller percentage, 6%, selected 'Improved cardiovascular health'.

Table No: 5 How does fast food impact blood sugar levels?

Particulars	No. of respondents	Percentage
Stabilizes them	1	2%
Causes rapid spikes	43	86%
Lowers them significantly	5	10%
Does not effect blood sugar	1	2%
Total	50	100%

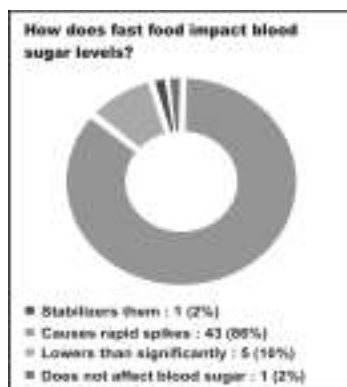


Chart No: 5

INFERENCE :

The effects of frequent fast food consumption on glucose metabolism and insulin resistance are covered in this review. Over time, higher blood sugar levels following meals may contribute to the development of type 2 diabetes due to the high glycemic index and excessive fat content of many fast food meals. The physiological processes by which eating fast food impairs blood sugar management are highlighted in the review (Farhangi, M. A et al., 2019).

From the above table it indicates that the majority 86% of respondents believe that consumption of fast food will give impact blood sugar levels can lead to “ Rapid spikes”. A smaller percentage 10% selected “ lowers them significantly” and 2% believe stabilizes them and 2% believe “Does not affect blood sugar”

Table No: 6 Which of the following is a psychological effect linked to fast food overconsumption?

Particulars	No. of respondents	Percentage
Improved focus	3	6%
Lower anxiety	7	14%
Increased risk of depression	40	80%
Increased memory	-	-
Total	50	100%

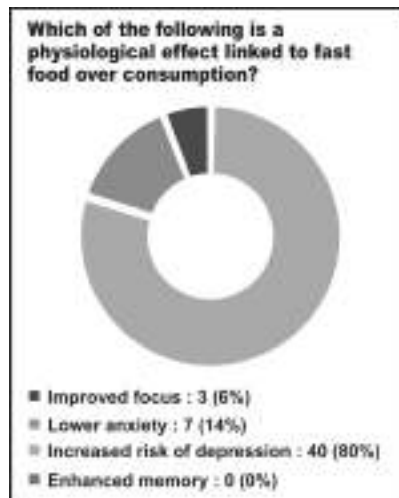


Chart No: 6

INFERENCE :

Van den Brink, W. (2007) investigates the connection between eating fast food and the emergence of mental health issues. It implies that a diet heavy in fast food and processed foods is linked to a higher incidence of anxiety and depression symptoms. The essay emphasizes the potential effects of specific nutrients—or the absence of them—in fast food on mental health and emotional stability.

From the above table indicates that most respondents (80%) associate fast food overconsumption with an “Increased risk of depression”, while a smaller portion links it to “Lower anxiety” (14%) or “Improved focus (6%)”. No respondents identified enhanced memory as a psychological effect. This highlights a general awareness of the negative mental health impacts of excessive fast food consumption.

Table No: 7 Which nutrient is often lacking in fast food meals?

Particulars	No. of respondents	Percentage
Protiens	4	8%
Healthy fats	16	32%
Vitamins and fibre	25	50%
Carbohydrates	5	10%
Total	50	100%

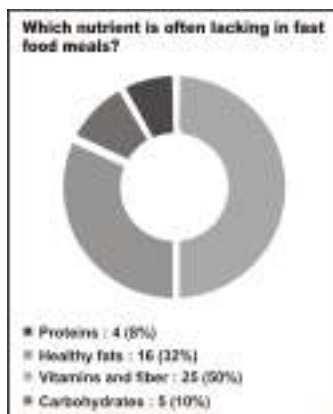


Chart No: 7

INFERENCE :

Fast food's low fiber content is one of the dietary elements that (Imamura, F et al., 2017) mentions in relation to chronic diseases, including type 2 diabetes and heart disease. It emphasizes how fiber, an essential component for blood sugar regulation, digestive health, and lowering the risk of cardiovascular disease, is frequently lacking in the popular fast food diet.

From the above table, it indicates that most respondents, 50%, selected 'vitamins and fiber' as the nutrients that are often lacking in fast food meals, while a smaller portion, 32%, selected 'healthy fats,' and 10% of respondents selected 'carbohydrates,' and 8% of respondents selected 'proteins

Table No: 8 Which chronic disease risks can increase with regular fast food consumption?

Particulars	No. of respondents	Percentage
Cancer	21	42%
Diabetes	23	46%
Tuberculosis	5	10%
Asthma	-	-
Total	50	100%

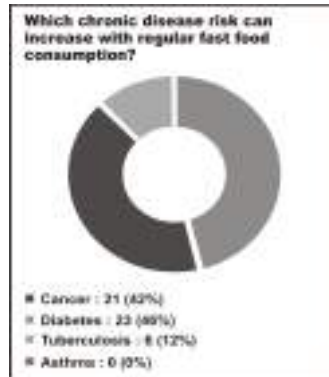


Chart No: 8

INFERENCE :

(Cifuentes, M et al., 2019) Fast food consumption and the risk of chronic disease are examined in this systematic review and meta-analysis. Since many fast food items contain large amounts of calories, harmful fats, and sodium, the study concludes that frequent fast food consumption is associated with increased risks of obesity, cardiovascular illnesses, hypertension, and type 2 diabetes.

The above table indicates that most respondents, 46%, selected 'Diabetes' as the chronic disease that increases the risk associated with consuming fast food. Meanwhile, 42% of respondents selected 'Cancer' as the chronic disease that increases the risk due to fast food consumption. A smaller portion, 12%, selected 'Tuberculosis' as a reason.

Table No: 9 Which organ is most directly affected by high sodium levels in fast food?

Particulars	No. of respondents	Percentage
Kidney	36	72%
Lungs	4	8%
Liver	10	20%
Brain	-	-
Total	50	100%

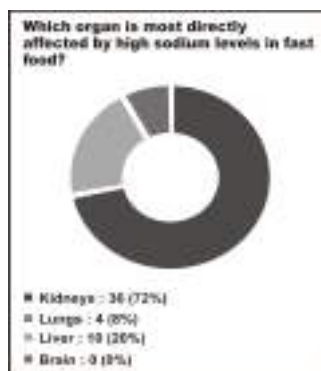


Chart No: 9

INFERENCE :

The increased sodium intake, frequently from fast food, can cause kidney injury, as this review paper explains. High sodium levels directly affect the kidneys, which are in charge of maintaining sodium balance. This can raise the risk of hypertension and cardiovascular disease over time and cause kidney failure (Liao, L., and Liu, Y 2017).

The data presented in the table demonstrate that a significant majority of respondents, specifically 72%, believe that the kidneys are the organs most adversely affected by elevated sodium levels in fast food. In contrast, 20% of the respondents indicate that the liver is impacted, while 8% believe that the lungs are affected.

Table No: 10 How does fast food consumption typically affect energy levels?

Particulars	No. of respondents	Percentage
Provides long-lasting energy	4	8%
Causes energy crashes	38	76%
Improves stamina	1	2%
Has no effect	7	14%
Total	50	100%

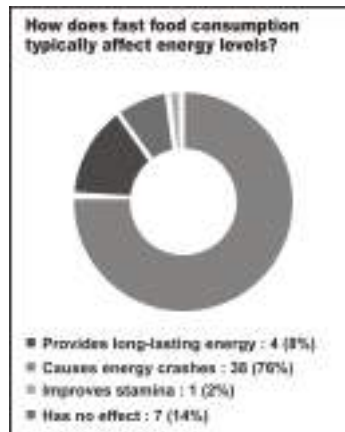


Chart No: 10

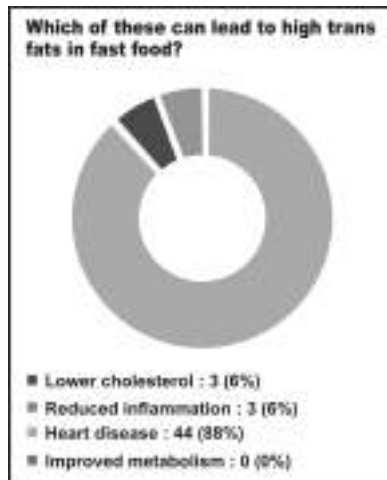
INFERENCE :

The association between fast food consumption and energy balance is examined in this study, which concludes that eating fast food frequently can cause an imbalance in energy levels. Many fast foods have a high glycemic index, which causes the body to experience quick blood glucose spikes and crashes that leave you feeling exhausted and less energized. The detrimental impacts on energy control and general physical performance are highlighted in the study (Ghaffari, S., and M. A. Farhangi 2018).

From the above table indicates 76% of respondents believe fast food consumption typically “Causes energy crashes”, while 14% of respondents think it has “No effect”, 8% of respondents say it provides “Long- lasting energy”, and 2% of respondents believe it “Improves stamina”.

Table No: 11 Which of these can lead to high trans fats in fast food?

Particulars	No. of respondents	Percentage
Low cholesterol	3	6%
Reduced inflammation	3	6%
Heart disease	44	88%
Improved metabolism	-	
Total	50	100%

**Chart No: 11****INFERENCE :**

(Clarke, R. 2009) investigates the effects on cardiovascular health of trans fats, which are frequently present in fast food since partially hydrogenated oils are used in its production. These trans fats raise dangerous cholesterol levels, which raises the risk of heart disease, according to the research. Fast food is a major source of trans fat intake, according to the study, because it frequently contains these fats via cooking techniques like deep frying.

According to the above table, 88% of respondents think that eating fast food rich in fat might cause “heart disease,” 6% think it can cause “reduced inflammation,” and 6% think it can cause “lower cholesterol.”

Table No: 12 How can regular fast food consumption affect your sleep?

Particulars	No. of respondents	Percentage
Improves sleep quality	1	2%
Disrupts sleep patterns	41	82%
Reduce the need for sleep	7	14%
Enhances REM sleep	1	2%
Total	50	100%

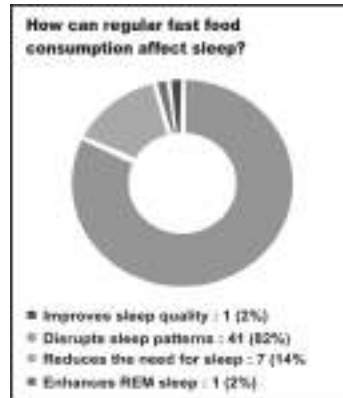


Chart No: 12

INFERENCE :

Frequent fast food consumption can interfere with sleep by producing digestion problems, weight gain, and circadian rhythm disruption. Consuming foods heavy in sugar, salt, and unhealthy fats can cause poor sleep quality, making it more difficult to get or remain asleep (**Reynolds et al., 2011**)

The above table indicates that 82% of respondents believe regular food consumption “disrupts sleep patterns”, 14% of respondents believe it “reduces the need for sleep” and 2% believe it “improves the quality and enhances REM sleep”.

Table No: 13 Which is a healthier alternative to fast food?

Particulars	No. of respondents	Percentage
Fresh homemade meals	43	86%
Packaged snacks	3	6%
Sugary cereals	4	8%
Processed meats	-	-
Total	50	100%

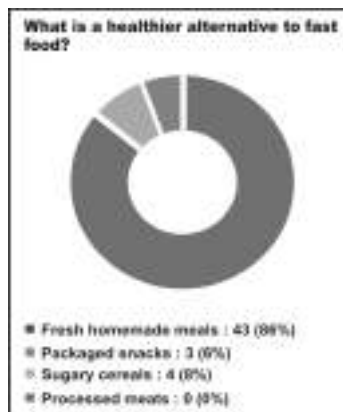


Chart No: 13

INFERENCE :

Eating Mediterranean-style foods, which are high in fruits, vegetables, fish, and olive oil, has been linked to a number of health advantages, such as better sleep and cardiovascular health (Sofi et al., 2014).

The above table indicates that 86% of respondents believe “fresh homemade meals” are a better alternative to fast food, 8% of respondents believe “sugary cereals” are a better alternative, and 3% of respondents believe “packaged snacks” are better.

Table No: 14 Which lifestyle element is most important for balancing the occasional fast food intake?

Particulars	No. of respondents	Percentage
Increased physical activity	36	72%
Skipping meals	10	20%
Drinking more soda	4	8%
Watching more Television	-	-
Total	50	100%

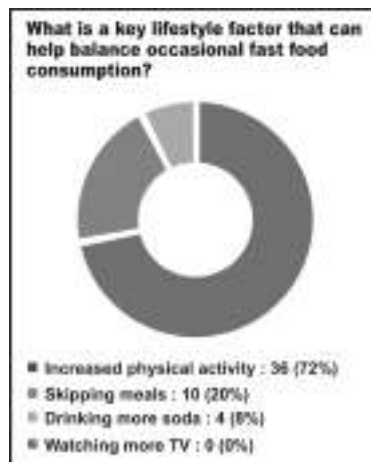


Chart No: 14

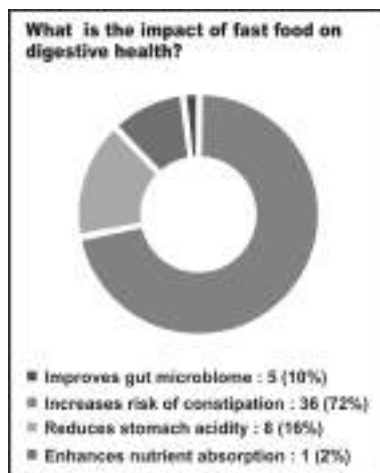
INFERENCE :

Physically active people are better equipped to handle the health hazards linked to bad eating habits, such as consuming fast food (Jacob et al., 2009; Reiner et al., 2013). The impacts of occasionally making bad dietary choices can be offset by exercise, which helps control blood sugar levels and enhance overall body composition.

According to the above table, 72% of respondents think that “frequent fast food consumption can be balanced by increasing physical activity.” Twenty percent of respondents think it’s good to skip meals, and eight percent think it’s good to consume more soda.

Table No: 15 What is the impact of fast food on digestive health?

Particulars	No. of respondents	Percentage
Improves gut microbiome	5	10%
Increased risk of constipation	36	72%
Reduces stomach acidity	8	16%
Enhances nutrient absorption	1	2%
Total	50	100%

**Chart No: 15****INFERENCE :**

Fast food consumption has been connected to an imbalance in gut flora, which can affect gut health and digestion. The diversity of good gut bacteria can be diminished by diets heavy in bad fats and low in fiber, which can result in digestive problems including irritable bowel syndrome (IBS) (David et al., 2014).

From the above table indicates that 72% of respondents believe impact of fast food on digestive problems leads to “Increases risk of constipation”, 16% of respondents believe “Reduces stomach acidity” 10% believe “Improves gut microbiome” 2% believe “Enhances nutrient absorption”

Table No: 16 Why does fast food often become addictive among adolescents?

Particulars	No. of respondents	Percentage
High levels of fibre	2	4%
Balanced nutrients	2	4%
Excessive sugar, salt and fat	45	90%
Low calorie content	1	2%
Total	50	100%

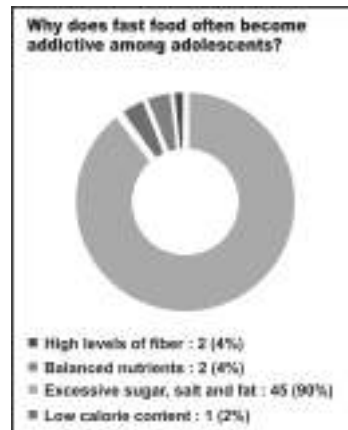


Chart No: 16

INFERENCE :

Excessive amounts of sugar, fat, and salt in fast food can cause addiction in teenagers for a number of reasons, including the fact that they trigger the brain's reward system, producing a positive reaction and reiterating the urge to eat it frequently. When food causes dopamine to be released, the experience becomes more gratifying, which is comparable to the addictive tendencies seen with substances like narcotics (Avena et al., 2008). Furthermore, adolescents are more vulnerable to peer pressure and food signals at this developmental stage, which may lead to an increase in their intake of fast food (Benton, 2004).

The above table indicates that 90% of respondents believe that “excessive sugar, salt, and fat” are often addictive, while 4% of respondents believe in “high levels of fiber and balanced nutrients” and 2% believe in “low calorie content.”

SUMMARY:

While fast food provides undeniable convenience, its long-term impact on health and lifestyle raises significant concerns. Moderation and informed choices are essential to mitigate negative effects. Opting for healthier alternatives, balancing fast food with nutritious meals, and promoting physical activity can help counteract the adverse consequences. Ultimately, fostering awareness and encouraging healthier eating habits is crucial in preventing lifestyle-related diseases and promoting overall well-being.

CONCLUSION:

Fast food consumption is more common among female adolescents and those between the ages of 17 and 19, according to the survey, mostly because it's convenient. Obesity, blood sugar increases, and mental health conditions like depression are among the health hazards that respondents are aware of. Vitamins, fiber, and good fats are the most frequently deficient nutrients linked to fast food. Furthermore, diabetes and cancer are thought to be two serious dangers associated with

fast food. Constipation and renal strain are thought to be the results of its detrimental effects on digestive health. Respondents agree that more exercise can counteract the negative impacts of fast food, and they believe that home-cooked meals are healthier than fast food. All things considered, the results highlight the necessity of improved dietary instruction and healthier options to enhance the well-being of adolescents.

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IMPACT OF INFLUENCER MARKETING ON BUYING BEHAVIOR – AN EMPIRICAL ANALYSIS WITH SPECIAL REFERENCE TO SKIN CARE PRODUCTS

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ABSTRACT

Nowadays, it's very simple to promote the things you wish to buy, thanks to an increasing number of marketing technologies. These days, influencers and internet marketing are commonplace. This study aims to examine the effects of influence marketing on consumers' decisions to purchase skin care products based on product specifications. Using a self administered questionnaire, primary data were used for the investigation. The random sampling method was used to gather 204 samples in the Chengalpattu district. A few aspects of customer behavior, attitudes, preferences, opinions, influencers, and buying patterns were uncovered by this study. The study poses some analytical tools such as Percentage analysis, ANOVA, Chisquare. Findings of the study, chi-square depicts that – firstly, null hypothesis is accepted and secondly null hypothesis is rejected, findings of ANOVA says that it is not significant and about second one depicts that it is not significant on dependent and independent variables. This study discovered that convenience and information have a major impact on each of the investigated dimensions.

KEYWORDS: *Influencer, social media, Influencer Marketing, Endorsements, Skin care, Buying Behavior, Buying Pattern.*

INTRODUCTION:

Influencer

Influencer marketing is a type of marketing in which a brand collaborates with someone who has a large following on social media or blogs, referred to as an influencer. The influencer advertises the brand's product or service to their followers, usually through sponsored posts, product reviews, or unboxing videos.

Influencer Marketing

Influencer Marketing is a social platform marketing strategy that includes endorsement and product placement by influencer. It is a widely used tactic for many reasons. It can also drive the brand exposure rapidly and it's also an affordable method to put your business in front of consumers who are interested in your product. Influencers refer to an individual who has the ability to influence the purchasing decisions or measurable behaviour of others by posting some kind of original—usually sponsored—content on social media sites such as, Youtube, Instagram, Snapchat, Tiktok, Twitter or other web channels. Influencer marketing entails a brand hiring influencers with an existing audience and celebrity on social media sites to discuss or mention the brand in a social media update. Influencer content may be delivered in the form of testimonial advertising. Influencer content can be presented in the form of testimonial advertising. As influencer marketing entered the digital age, its techniques shifted dramatically in response to changing consumer behaviour and technological backgrounds. This evolution resulted in the use of increasing complex ways to effectively communicate with audience. Collaboration with micro-influencers has become a common tactic for brands looking to connect with specific audiences. These influencers, with a small but loyal following, provide authenticity and high engagement, making them valuable partners for brands looking to connect with consumers.

INFLUENCERS MARKETING PLATFORMS

In a survey conducted in 2023 on over 2,000 brands globally, about 80 percent had asserted that they were using Instagram influencer marketing. TikTok is catching up: within the same research that was conducted in 2023, 56 percent of brands who responded reported the use of the same site in influencer marketing campaigns. In spite of the popularity of TikTok on Instagram in influencer marketing, brands must not forget the potential the others have. Like more traditional forms of marketing platform, Up influence suggests that some sites might attract specific influencers, depending on the number of followers the influencer has. Micro and medium influencers prefer Instagram. Macro and mega influencers shift to TikTok.

THEORETICAL BACKGROUND

Social media has emerged as a key tool in marketing and advertising in the contemporary digital era, and influencer marketing is growing in popularity across most sectors, including skincare. Understanding the theoretical underpinnings of influencer marketing and how it affects consumer sentiment, particularly in relation to skincare products, requires looking at a number of significant ideas and theories.

Influencer Marketing: Influencer marketing leverages individuals with significant followings on social media platforms to promote products and services to their audience. Influencers typically possess credibility, authenticity, and influence within their niche, making them effective brand advocates. The theoretical basis of influencer marketing draws from several concepts like social influence theory, source credibility theory and so on.

Consumer behavior: Consumer behavior encompasses the actions and decision making process individuals undertake when purchasing goods and services.

REVIEW OF LITERATURE

Papitha Anjum R (2021) Impact of Social Media Influencers on Customer Engagement and Loyalty: A Study of Selected Healthcare Products in Chennai was the title of the study. The study suggests that the management of healthcare products should take the appropriate steps to improve customer loyalty and design and implement effective customer engagement initiatives with the use of social media. The purpose of this study is to identify and investigate the social media influencer factors influencing the degree of consumer interaction with healthcare products. Additionally, the study aims to ascertain how customer interaction contributes to the development of consumer loyalty for healthcare products in Chennai. Using a sample of 160 customers, the study is carried out using various statistical tools to provide the correct interpretation of the data. These tools include the independent sample “t” test, correlation, and multiple regression (inferential), as well as percentage analysis (descriptive). According to the study’s findings, consumers are tired of obtrusive advertisements and communication messages that are geared at marketers. Instead, they want communication messages that are customer-focused, appealing, and helpful. The number of clients whose purchasing habits have been influenced by social media influencers has increased exponentially since the advent of social media.

Shruti shukla, (2023). Influencer Marketing and Buying Behavior (A case study of Kay Beauty products). Study centers on the influence of influencer marketing on consumer buying behavior. The primary aim the research is to investigate how influencer marketing affects consumers behaviour and analyze the impact of influencer marketing on sales of ‘kay beauty products’ the aim of the study was to identify to how powerfully influencer endorsement can shift consumers-altitudes and behaviour when the buy kay beauty products. The descriptive statistics analysis was applied the processing of primary data obtained through the survey questionnaire. Random supplying in utilized in the selection of the sample. The sample size is 110, and it is concluded that influencer marketing contributes significantly to brand awareness, even though it does not necessarily translate into products purchases. The decision to purchase is highly driven by the trust in brands and the price of the products.

OBJECTIVES OF THE STUDY

- To determine the demographic profile of the respondents.
- To examine the correlation of age and marital status with Frequency of buying skincare products and family income with expenditure on skincare products.
- To assess the significant difference between income and educational qualification with practice of checking reviews before purchasing the skin care products.

RESEARCH METHODOLOGY

The cross-sectional study employed a research design in investigating the influence of influencer marketing on purchasing behavior of skincare products. 204 individuals in the Chengalpattu district completed a self-administered questionnaire. Random sampling was used to assure the sample’s representativeness. The questionnaire included questions about respondents’ demographic characteristics, purchasing habits, and factors influencing their decision to purchase skin products. Descriptive statistics was employed to summarize demographic characteristics and key factors, as well as inferential statistics like analysis of variance (ANOVA) and chi-square tests to uncover correlation between demographic variable and purchase behaviours.

DATA ANALYSIS AND INTERPRETATION

In research, data analysis and interpretation are essential because they help researchers make sense of the data they have gathered and offer insightful information about the correlations between variables.

Table 1: Demographic profile of the respondents

VARIABLES	DOMINANT GROUP	FREQUENCY	PERCENTAGE
Gender	Female	155	76
Age(in years)	15 – 20	130	63.8
Marital Status	Unmarried	152	74.5
Qualification	UG	78	38.2
Occupation	Student	142	69.6
Family Income	2 Lakhs to 6 lakhs	152	74.5

From the above table, it was found that 76% of the respondents were Female. 63.8% of the respondents belonged to the age group of 15-20 years 74.5% of the respondents were Unmarried 38.2% of the population was dominated by Undergraduates 69.6% of the respondents were Students. 74.6% of the respondents earned Annual income of Rs.2,00,000 – Rs.6,00,000.

To obtain association between Marital status and the Purchase Frequency of skin care products

H0 - There is no Association between Marital status and the purchase frequency of skin care products.

H1 - There is an Association between Marital status and the purchase frequency of skin care products.

Table 2: Marital status and the Purchase Frequency of skin care products

	VALUE	df	P VALUE
Pearson Chi-Square	.206(a)	2	.902
Likelihood Ratio	.206(a)	2	.902
Linear-by-Linear Association	.121	1	.728
N of Valid Cases	204		

From the above table the calculated value of Chi-Square was 0.902 and is higher than the table value of 0.05. Therefore, null hypothesis is accepted, and the alternate hypothesis is rejected at 5% significance level. So, there is no Association between Marital status and the frequency of usage of skin care products.

To obtain association between Age and the Frequency of usage skin care products

H0 - There is an association between Age and the Frequency of usage skin care products.

H1 - There is no association between Age and the Frequency of usage skin care products.

Table 3: Age and the Frequency of usage skin care products

	VALUE	df	P VALUE
Pearson Chi-Square	53.708(a)	22	.000
Likelihood Ratio	57.584	22	.000
Linear-by-Linear Association	18.281	1	.000
N of Valid Cases	204		

Table 3 depicts that the value of calculated Chi-Square is 0.000 which is smaller than the table value of 0.05. The null hypothesis is thus rejected and the alternate hypothesis is accepted at a 5% level of significance. Therefore, there is an Association between Age and frequency of usage of skin care products.

To obtain association between Family income and Amount spent on skin care products

H0 - There is an association between Family income and Amount spent on skin care products in a month.

H1 - There is no association between Family income and Amount spent on skin care products in a month.

Table 4: Family income and the Amount spent on skin care products in a month

	VALUE	df	P VALUE
Pearson Chi-Square	7.929(a)	6	.243
Likelihood Ratio	7.045	6	.817
Linear-by-Linear Association	4.021	1	.046
N of Valid Cases	204		

Table 4 depicts that the value of Chi-Square calculated is 0.243 which is less than the table value of 0.05. Therefore, the null hypothesis is rejected and the alternate hypothesis accepted at 5% level of significance. Therefore, there exists an Association between Family income and the Amount spent on skin care products in a month by the respondents.

H0 - There is significant difference between Income Level and Frequency of buying skin care products.

H1 - There is no significant difference between Income Level and Frequency of buying skin care products.

Table 5: ANOVA among Income level with respect to Frequency of buying skin care products

Frequency of buying skin care products	N	Mean	Std. Deviation	Std. Error	F Value	P Value
2 lakhs to 6 lakhs	152	2.73	1.110	.090	0.292	0.747
6 lakhs to 9 lakhs	33	2.73	1.098	.191		
more than 9 lakhs	19	2.53	1.073	.246		
Total	204	2.71	1.101	.077		

Table 5 depicts that the between groups ($F = .292$, $P = .747$) are not statistically significant at 5% level. This shows that the Income level with respect to frequency of buying skin care products did not differ in the perception towards the above-mentioned predominant factors.

H0 - There is a significant difference between Educational qualification and checking the reviews about skin care products.

H1 - There is no significant difference between Educational qualification and checking the reviews about skin care products.

Table 6: ANOVA among Educational qualification with respect to Checking the reviews about skin care products

Checking the reviews about skin care products	N	Mean	SD	Std. Error	F Value	P Value
SSLC	31	1.94	.892	.160	0.542	0.654
HSC	60	1.87	.892	.115		
UG	78	1.78	.832	.094		
PG	35	1.69	.867	.147		
Total	204	1.81	.862	.060		

Table 6 depicts that the between groups ($F = .542$, $P = .654$) are not statistically significant at 5% level. This shows that the Education qualification with respect to checking the reviews about skin care products did not differ in the perception towards the above-mentioned predominant factors.

GENERAL FINDING

- Majority of the respondents were Aged between 15 - 20 years (64%)
- Majority of the respondents were Female (76%)
- Majority of the respondents were Unmarried (75%)
- Majority of the respondents were Under Graduated (38%)
- Majority of the respondents were Students (70%)
- Majority of the respondents had a Family Income of 2,00,000 – 6,00,000 (75%)
- Majority of the respondents used skin care products less than 1 year (48%)
- Majority of the respondents used skin care products once a day (43%)
- Majority of the respondents spent amount below Rs 500 for skin care products (59%)
- Majority of the respondents Always collected information before purchasing the skin care products (48%)

SPECIFIC FINDINGS

- There is no Association between Marital status and the Frequency of usage of skin care products.
- There is an Association between Age and the Frequency of usage of skin care products.
- There is an Association between Family income and the Amount spent on skin care products in a month.
- Income level with respect to frequency of buying skin care products did not differ in the perception.
- The Education qualification with respect to checking the reviews about skin care products did not differ in the perception.

SUGGESTIONS

Skincare product marketers may consider tailoring their marketing strategies to effectively reach these demographics. These combines utilizing influencer marketing campaigns that resonate with the preferences and lifestyles of young, and unmarried women.

- The association between age and frequency of skincare product usage indicates that marketers should also consider age demographics when designing marketing campaigns. Products and information's need to be improved to attract different age groups within the target market.
- Marketers should consider offering a range of products at various price points to cater different income brackets without compromising quality.

However, it's still crucial for skincare product marketers to make transparent communication a priority, to be easily able to access reviews and information regarding their products to satisfy the needs of various consumers with different educational levels.

Through the application of these recommendations, marketers of skincare products can make their strategies more specific to the needs and desires of their target consumers, thereby enhancing customer satisfaction and brand loyalty.

CONCLUSION

This research offers significant implications that may guide marketing strategy and product development in the skincare product business. Having insight into the demographic traits and consumer purchasing behavior, marketers can adapt their methods to reach and connect with their customers effectively in the Chengalpattu district. Further study directions that can help us better understand this market niche and direct future marketing campaigns include qualitative studies of consumer preferences and motives. All things considered, the findings of this study advance our knowledge of consumer behavior in the skincare product industry and offer useful suggestions for marketers looking to meet the requirements and desires of this market's customers.

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GARDEN CRESS SEEDS - A FUNCTIONAL INGREDIENT FOR VALUE ADDED PRODUCTS: A COMPREHENSIVE REVIEW ON ITS NUTRITIONAL BENEFITS

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ABSTRACT

Maintaining optimal health requires eating a well-balanced diet. Nuts and seeds have been shown to help a variety of diseases, such as Neoplasms, Hypercholesterolemia, Non-Insulin Dependent Diabetes Mellitus (NIDDM) or Adult-Onset Diabetes, Neurocognitive disorder, and Congenital abnormalities. They contain vitamins E and B, minerals (potassium, calcium, iron, zinc, selenium, magnesium, and phosphorus), omega-3 fatty acids, protein, and fiber. They complement a number of dietary fads and healthful eating approaches, such as the Mediterranean diet, and can be utilized in cooking. Lepidium sativum, or garden cress, seeds are one of the necessary nutrients that our bodies need for a variety of crucial processes. Lepidium sativum seeds include phytochemicals, proteins, dietary fiber, iron, and omega-3 fatty acids, among other essential nutrients. Lepidium sativum seeds are commonly used to repair fractures and increase milk production during lactation. The seeds are very nutrient-dense and a great way to get iron. Alkaloids, sugars, proteins, amino acids, and flavonoids are its principal phytochemical ingredients. The objective of this review is to discuss the nutritional information and value added products from Garden Cress seeds. The data from secondary sources (a research findings and summary from other studies and sources) are used for this review.

KEYWORDS: *Garden cress seeds (Lepidium Sativum), Value added products, Nutritional composition, Health benefits.*

INTRODUCTION:

Garden cress (*Lepidium sativum*), a member of the Cruciferae family, is widely cultivated in India, North America, and Europe (Nadkarni, 1976). Recognized as a medicinal plant since the Vedic era, its seeds are rich in iron, omega-3 fatty acids, dietary fiber, proteins, essential minerals, and bioactive compounds. Traditionally, garden cress has been used to manage respiratory Problems such as Chronic airway inflammation, Bronchial inflammation and cough. The seeds also aid in alleviating, Inflammatory response, Inflammatory joint disorder, and Myalgia and are known for their lactation-boosting (galactagogue) and menstrual-regulating (emmenagogue) effects. Additionally, they are Liver-protective, Hypoglycemic, Antidiarrheic, Spasmolytic, Hypocholesterolemic, Pain-relieving, Pro-coagulant, Renal stimulant and Antineoplastic properties. The seeds are smooth, tiny, reddish-brown, oval-shaped with a pointed triangular end, measuring approximately 3–4 mm in length and 1–2 mm in width.

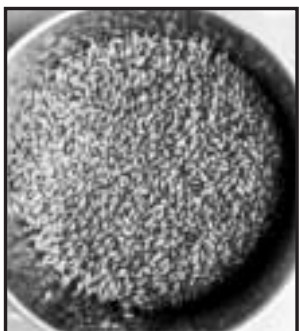
OBJECTIVES OF THE STUDY:

To systematically review and analyze the ‘Nutritional benefits of Garden cress seeds as a functional ingredient for Value added products ‘Comprehending the nutritional advantages can aid in the creation of food items and expanding their application.

TYPES OF SOURCES FOR A REVIEW:

- Primary source - results and reports obtained from original studies.
- Secondary source - a research findings and summary from other sources or studies.
- Conceptual or theoretical source - Understanding or analysing the concepts and theories.

GARDEN CRESS SEEDS - NUTRITIONAL INFORMATION



Source : Google

Fig. 1 Garden Cress Seeds

100 g of garden cress seeds provide 445.18 kcal of energy, 24.11 g protein, 24.12 g fat, 9.01 g fiber. In addition, Garden cress seeds also provide calcium (320.45 mg/100g), magnesium (353.87 mg/100g), phosphorus (619.82 mg/100g), potassium (1141.67 mg/100g) and iron (11.70 mg/100g). Garden cress seeds have long been utilized as functional food. It is served as a milk-based beverage to expectant and nursing women in several regions of India. In western countries, it's utilized in salads, soups, and smoothies. Despite the fact that garden cress seeds are rich in nutrients, Numerous culinary experts have integrated the seeds into regional cuisines, and the sensory panel has determined that they are acceptable. To make the use of

these seeds more widely accepted, these goods must be expanded and made more widely available and are Beneficial in preventing micronutrient deficiencies.

GARDEN CRESS SEEDS - CHEMICAL COMPOSITION:

Its 21–25% protein content is necessary for tissue healing and muscular building. The seeds provide undernourished people with a strong source of energy because they are high in fat (23–25%) and carbs (30–34%). Zia-Ul-Haq et al., 2011). Low -moisture seeds provide greater stability, greater nutritional value, and an extended shelf life (Alsadee & Agbashee, 2021).

THE MINERAL AND VITAMIN COMPOSITION OF GARDEN CRESS SEEDS:

Garden cress seeds are Considered a good Vitamin C Source, it is more effective against infections and illnesses. Vitamin C in *L. sativum* leaves ranges from 54 to 74 mg/100 g FW, according to Sat et al. (2013). Malar et al. (2014) conducted a study to investigate the ascorbic acid content of *L. sativum*'s stem, leaves, entire plant, and seeds. The results showed that the contents were, respectively, 11.74 mg, 7.4 mg, 12.5 mg, and 9.68 mg. Vitamin B12 (0.59 mg), Vitamin B2 (0.61 mg), and Vitamin B3 (14.3 mg) (Gokavi et al., 2004). It is also an excellent source of iron, magnesium, and calcium. Magnesium (430 mg/100 g) and calcium (377 mg/100 g).

AMINO ACID AND FATTY ACIDS COMPOSITION OF GARDEN CRESS SEEDS:

Garden cress seed protein is of excellent quality and includes essential amino acids including phenylalanine (5.65 g) and lysine (6.26 g). According to Gopalan et al. (1971), methionine (0.97 g) is a limiting amino acid in the seeds. All of the essential amino acids are found in garden cress seeds, with the exception of tryptophan and the trace levels of the S-containing amino acids cysteine and methionine. Furthermore, 2- Amino-4-carbamoylbutanoic acid and 2-Aminosuccinic acid, two important amino acids that Can be produced by the Body , are abundant in garden cress seeds. Garden cress seeds have 20–25% semi-drying, yellowish oil in them. Garden cress seeds have a fatty acid profile that includes significant quantities of alpha-linolenic acid (ALA), an omega-3 fatty acid (26–34%), Linoleic acid – An omega-6 fatty acid (7.5–11.8%), and eicosanoic fatty acids (2–3.5%) , all of which are helpful to the brain function and memory. The seeds also include oleic, palmitic, and stearic acids. The unsaponifiable materials contain alpha- tocopherol and beta-sitosterol. Garden cress contains an abundance of minerals that may help reduce the occurrence of numerous non-communicable and nutritionally deficient disorders (Ali, 2013).

GARDEN CRESS SEEDS AND IT'S BIOLOGICAL ACTIVITY :

The garden cress seeds have a bitter taste masks a multitude of health benefits: they are thermogenic (they increase body temperature), depurative (they purify the body), ophthalmic (they treat eye disorders effectively), antiscorbutic (they prevent or treat scurvy), antianemic, diuretic (they help the body eliminate salt and water), tonic (they restore and strengthen the nervous system), laxative (they relieve constipation), galactagogue (they increase milk production),and emmenagogue (they stimulate menstrual flow).Garden cress also contains a variety of other significant bioactive substances, including as Flavonol glucuronide, Tannin precursor , protocatechuic acid, Catechol carboxylic acid, Cinnamic acid derivative, and Phenolic compounds. Given that it contains significant concentrations of several phytochemicals, including glucosinolates, terpenes, alkaloids, and saturated and essential fatty acids, garden cress is regarded as a versatile functional and therapeutic plant.

GARDEN CRESS SEEDS FOR THE TREATMENT OF IRON DEFICIENCY ANAEMIA:

Due to their high iron content, garden cress seeds promote the growth of red blood cells (Falana et al., 2014). Without the need for extra supplements, anemia or iron deficiency can be treated with the vitamin- C and iron-rich garden cress seeds (Umesha & Naidu, 2015). L-ascorbic acid forms an acidic chelate with ferric iron in the stomach, which aids in increasing iron absorption. Long-term ingestion of Garden Cress seeds raises hemoglobin levels and treats anemia.

USING GARDEN CRESS SEEDS TO TREAT MENSTRUAL CYCLE ISSUES AND BREASTMILK SECRETION:

Because garden cress seeds contain compounds that resemble estrogen, eating the seeds may help regulate menstrual cycles (Diwakar et al., 2010). Garden cress seeds in powder form administered to rats (1.6 mg/g BW) for 14 days produced both mammogenic and lactogenic effects. Rats who had their ovaries removed had a comparable impact on prolactin, progesterone, and luteinizing hormone (Patel et al., 2009).

GARDEN CRESS SEEDS FOR NURSING MOTHERS:

Nursing women are strongly advised to consume garden cress seeds since they are great galactagogues (Khan, 2018). It helps the mother who is breastfeeding continue to produce and flow high-protein, high- iron breast milk (Imade, Smith, & Gazal, 2018; Imade, Erinfolami, et al., 2018).

ANTI - CANCER, ANTI - DIABETIC, ANTI - HYPERTENSIVE AND ANTI-HYPOCHOLESTEREMIC EFFECTS OF GARDEN CRESS SEEDS:

Antioxidants, such as vitamins A and E, are included in this product and shield cells from harm caused by free radicals. Research has indicated that administering this substance via injection can effectively eliminate carcinoma of the breast tissues (Imade, Smith, & Gazal, 2018). The seeds of *L. sativum* L., sometimes known as garden cress, contain a variety of chemopreventive and therapeutic components (Hazafa et al., 2020). 300 mg/kg BW was the ideal dosage of *L. sativum* 20% seed methanol extract for controlling blood sugar and treating hyperglycemia. According to Kazam et al. (2018), the Methanol-based extract of *L. sativum* resulted in a more favorable blood lipid composition. Boosted cellular protection against oxidative stress also Optimized glycemic control. The Insulin-sensitizing effects of this seed powders were investigated in both healthy participants and those with NIDDM. There was hypoglycemic action after 21 days of treatment. According to research, people with dyslipidemia may benefit from a diet high in garden cress oil in terms of their plasma lipoproteins and blood lipid profile (Kraft, 2015). It has been discovered that *Lepidium sativum* L., a plant in the *Lepidium sativum* family, exhibits hypotensive and diuretic effects in spontaneously hypertensive (SHR) and normotensive (WKY) rats (Paranjape & Mehta, 2006).

BENEFICIAL EFFECTS OF GARDEN CRESS SEEDS FOR BONE FRACTURES:

The mucilage extracted from the seed coats of garden cress has found application as a pharmaceutical excipient in numerous medicinal formulations (Dixit Jr et al., 2020). The tensile strength of the fractured tibia significantly improved when *L. sativum* was applied, as evidenced by a notable increase in collagen synthesis at the fracture site. The plant's established history of use in facilitating bone healing. Studied the Traditional applications of the plant in orthopedic treatments (Prajapati et al., 2014)

GARDEN CRESS SEEDS TOXICITY AND SIDE EFFECTS:

- Studies examining the toxicological profile of *L. sativum* seeds have determined that they are non-toxic and safe for use (Hekmatshoar et al., 2022).
- If used in excess, it is an abortifacient. Pregnant women should not consume Garden Cress in any form due to its spicy and bitter taste caused by the presence of galactogogue.
- Consuming great quantity may impact thyroid function. It contains goitrogens, which can cause hypothyroidism by preventing the thyroid from absorbing.

DIETARY SUPPLEMENTS:

Research has indicated that the water absorption capacity of cress seeds (229 mL H₂O/100 g) was high (86.90%). Cake, bread, and meat sectors can all use garden cress seed as an ingredient. The protein extracted from garden cress seeds can be utilized in food systems in addition to being a nutrient replacement or supplement (Shawle et al., 2016). Rich in calcium, iron, and protein, cress seed can be used to cure a variety of illnesses. You can make a wheat-based food product such as Mathri by adding varying amounts of powdered cress seed (2.5%, 5%, and 7.5%).

IN THE PROCESSED SPREAD CHEESE:

In one trial, the emulsifying ingredient for processed spread cheese was made from cress seeds instead of salt. Conversely, when compared to the control (3% commercial emulsifying salt), cress seed powder was prepared and applied in six various proportions (0.05%, 1.5%, 2.5%, 3.5%, 4.5%, and 5.5%) when manufacturing processed spread cheese. According to the findings, 3.5% cress seeds significantly improved health, especially when it came to lowering glucose ratios (Punia & Dhull, 2019).

DAHIWALA BREAD:

According to a recent study (Bhardwaj et al., 2020), The quality and texture of rice-wheat bread be improved through the addition of Garden Cress Seeds (GCS). A composite bread was formulated by incorporating different percentages of G and L hydrocolloids (0%, 0.3%, 0.6%, and 1%) into the flour.

Research findings indicate, GCS improved the bread's quality and texture by acting as a creative and practical gluten replacement. These characteristics might be especially helpful for functional food preparations meant to address problems like female anemia and milk supply (Eyres & Eyres, 2014).

TABLE 1: SOME VALUE ADDED PRODUCTS FROM GARDEN CRESS SEEDS

Value added Products from Garden Cress seeds	Maximum accepted level of incorporation of garden cress (Percentage)	Other ingredients	Acceptance by sensory evaluation panel
Health drink (SnehalY Mohite et.al. 2012)	3	skimmed milk and varying levels of garden cress seeds powder	Yes
Ladoo (M. Angel and K.P Vasantha Devi 2015)	10	Wheat flour, Bengal gram flour Ground sugar (10 percent) Rice flakes, Bajra, Roasted Bengal gram dhal, sa-mai, jaggery (10 percent)	Yes
Pinni (Tanu Jain et.al. 2016)	10	Wheat flour, green gram flour, Jaggery	Yes
Panjiri (Tanu Jain et.al. 2016)	10	Wheat flour and jaggery	Yes
Laddu (Tanu Jain et.al. 2016)	10	Wheat flour, Bengal flour and gound sugar	Yes
Sandwiches (Mamta Sharma 2015)	10	Using germinated garden seeds	Yes
Soup (Mamta Sharma 2015)	15	Using germinated garden seeds	Yes
Salad (Mamta Sharma 2015)	20	Using germinated garden cress seeds	Yes
Bhujia (Mamta Sharma 2015)	25	Using germinated garden cress seeds	Yes
Raita (Mamta Sharma 2015)	10	Using germinated garden cress seeds	Yes
Mathri (Priyanshu Tripathi et.al.2017)	10	Wheat flour, Pearl millet flour and rice flakes	Yes
Burfi (Tanu Jain et.al. 2016)	10	10 and 5 Percentage variations with garden cress seeds	Yes
Chikki (Tanu Jain et.al. 2016)	10	25 Percentage	Yes
Biscuits (Tanu Jain et.al. 2016)	25	Wheat flour and Butter	Yes
Burfi (Shekhara Naik R et.al. 2020)	25	Coconut, milk and jaggery	Yes
Muffins (Varsha Rani et.al. 2020)	5	Garden cress seeds	Yes

CONCLUSION:

Nutritionally improved insufficiently utilized Garden cress seed may prove to be an excellent plant in the future for treating a variety of medical conditions, preventing hunger and malnutrition, producing a range of nutritious drinks and food products, and making blended supplements in the production of traditional and modern food products. Despite the fact that Garden Cress seeds are abundant in many vital nutrients, they are less well-known and sometimes overlooked in traditional recipes across many nations. Increased consumer education and awareness will help to fully utilize these seeds.

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A REVIEW - FROM WASTE TO WELLNESS: THE REMARKABLE JACKFRUIT SEED POWDER HEALTH BENEFITS

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ABSTRACT

Jackfruit (Artocarpusheteroglyphis Lam) is the most abundantly produced fruit in the Moraceae family. Although its origin is India, it may be grown throughout Asia, Africa, and South America. Jackfruit (Artocarpus heterophyllus) seeds, which are usually discarded as agricultural waste, have a high medicinal value. This review article deals with the pharmacological activity and therapeutic value of jackfruit seed powder, considering its wide usage in traditional as well as conventional medicine. Seed powder is high in bioactive components, such as antioxidants, polyphenols, and flavonoids, which contribute to its health benefits. Moreover, the powder also has the potential to control chronic diseases, such as diabetes, high blood pressure, and gastrointestinal ailments. This review consolidates recent research evidence, highlighting the need for more clinical trials to confirm its safety and efficacy. The therapeutic applications of jackfruit seed powder indicate its utility as a functional food ingredient and a natural medicinal compound.

KEYWORDS: *Jack fruit, agricultural waste, jackfruit seed powder, bioactive component.*

INTRODUCTION

Jackfruit, also known scientifically as *Artocarpus heterophyllus*, is a member of the family Moraceae and has been identified as the world's largest fruit-producing tree. Jackfruit is found in large tropical and subtropical areas, such as Bangladesh, Indonesia, Malaysia, Sri Lanka, and Thailand. The jack tree is also an ideal choice for dry land horticulture because it performs satisfactorily on both the arid plains and the warm, humid slopes of the hills of southern India. Although usually planted by seeds, trees tend to grow in different amounts, fruit length, and fruit quality based on their heterozygous and cross-pollinated nature. All jackfruits consisted of three parts: 48% rind, 18% seeds, and 34% bulbs. The oval-shaped seeds are 1.5 to 2.5 cm to 2-4

cm in length. Containing 8-15% of the weight of the fruit, are housed in the bulbs, and are rich in useful nutrients. They include necessary elements, such as carbohydrates (60-80% on a dry matter basis), proteins, vitamins, and minerals, along with dietary fiber, which are involved in different biological processes. In addition, these seeds are rich in phytochemicals, such as lignans, isoflavones, and saponins, which are responsible for a variety of health benefits, such as antiviral, antibacterial, cardioprotective, and anti-mutagenic activities. Jackfruit is a seasonal fruit and its seeds have a comparatively short shelf life. The seeds are usually eaten or used in different types of culinary dishes, boiled or roasted. Mature fruit seeds were collected, sun-dried, and stored for use during the rainy season in India. However, many seeds go unused annually because of problems with storage and preparation.

In addition, the nutritional value of jackfruit seeds has not received much attention; hence, they are underutilized. Therefore, seed flour manufacturing offers a convenient solution for storage and use, value addition, and the possibility of being combined with other grains to enhance the sensory qualities of the final product. In addition, subjecting the grains to heat treatment can help alleviate anti-nutritional factors, thus improving the overall nutritional quality. Considering this background, heat treatment of jackfruit seeds was performed to evaluate its effect on nutritional and anti-nutritional constituents. Jackfruit seed flour was added to bakery items to understand its acceptability and nutritional contributions.

OBJECTIVES OF THE STUDY

To critically review and examine the Health Benefits of Jackfruit Seed Powder.

Types of sources for a review

- Primary source: Findings and reports from original studies.
- Secondary source - findings and summary from other studies or sources.
- Conceptual/theoretical source: Understanding and examining concepts and theories.

JACK FRUIT SEED

The jackfruit seeds contained 61.8% water. The protein, fiber, and carbohydrate contents were 11.85 %, 3.19%, and 26.20 %, respectively, and jackfruit seed flour had an appreciable amount of potassium. Calcium is 308.7 mg/100 g and iron was 13.07 mg/100 g. 1478.1 mg per 100g, sodium 6.066 mg per 100g, and copper 1.045 mg per 100g. Jackfruit seeds contain 0.112 mg of Mn per 100 g, which is a tasty amount. These seeds are not only delicious, but also contribute to calcium absorption, helping to strengthen bones and prevent conditions such as osteoporosis. Jackfruit seeds can be found in cans and can be ground into flour to serve as a valuable source of protein or carbohydrates in the diet. They are used as functional agents in various food products in the baking industry. According to Otegbayo et al. (2013), this flour is high quality and can bind water and lipids, as noted by Swaami et al. (2012).

Jackfruit seeds are oval or round in shape, with a brown hue, and measure approximately 2–4 cm in size. They are approximately 1.5-2.5 to cm thick and the same in length. A single fruit has a sugar content ranging from 100 to 100 percent. These seeds make up approximately 10-15

percent of the fruit's total weight, with approximately 150 seeds per fruit. When ripe, the seeds are thoroughly dried, either by sun-drying or other methods, for optimal storage and future use. However, a significant number of seeds are discarded each year because of their short shelf life. This is often due to a lack of knowledge about their nutritional value and bioactive properties as well as uncertainty about how to process and store them properly. Storing seeds in a cool and damp environment can also increase the risk of infection. Generally, seeds have a shelf life of 30–35 d.

It is preserved because seeds are recalcitrant, and they germinate incontinently once they have germinated. Achievement of Maturity. Therefore, it is not possible to store fresh seeds for a long period. The time corresponds to the material. The seeds were dehydrated to secure storehouse humidity. The material can be stored for a long period. The seed was sown. Flour covers may be applied to certain foods. White chuck cutlet, extruded product. It is also a stabilizing and thickening agent. Seeds are by-products of this process. Flours can be a key product. Thus, both value addition and use can be achieved. Mix with other grain flours without altering the thickness. The end product, butool, has a functional and sensitive profile. Following Butool and his coauthors (2013), it's also viable to employ jackfruit seed flour. In combination with wheat flour, we investigated the possibility of using low-fat dairy items. Jackfruit seed flour is an invaluable raw material used in bakery foods (Chowdhury et al., 2012).

NUTRITIONAL COMPOSITION

The antioxidant and nutritional properties of jackfruit seeds remain largely unexplored. They are high in starch, fiber, and proteins. In a study by Chrips et al., jackfruit seeds were shown to have a lower carbohydrate content than other species within the same family, ranging from 37.4% to 42.5%. The protein content varied from 5.3% to 6.8%. Jackfruit seeds are rich in vitamins and minerals including nitrogen, phosphate, K, Ca, Na, Mg, Fe, sulfur, Zn, and Cu. Jackfruit seeds had a dry composition of 14% protein, 71% carbohydrates, 2% ash, and 1% fat. Jackfruit seed flour has a calorie value of 356 calories/100 g.

These seeds are high in vitamins A, B, and C, as well as pectin. They may also benefit health by aiding blood purification and protecting the pancreas. For instance, 1 kg of jackfruit seeds contains approximately 1478 mg of potassium, 3087 mg of calcium, 130 mg of iron, and 61 mg of sodium. The nutritional makeup of these seeds is subject to variance based on weather and soil conditions as well as isoterpenes, flavonoids, phenols, saponins, alkaloids, tannins, and steroids. Jackfruit seeds are rich in vitamin A and phenolic compounds, which contribute to their antioxidant capacity, contributing to 70% of the total antioxidant activity. Jackfruit seeds are rich in potassium.

TABLE 1: JACKFRUIT SEED PROXIMATE COMPOSITION

Proximate composition	Tulyathan V. et al. (2002) [13] (%)	Tiwari et al. (2015) [12] (g)	Abida sultana et al. (2017) (%)
Moisture	7.70±0.20	51.6-57.77	39.22±0.18
Ash	3.97±0.04	1.25-1.50	1.30±0.10
Crude protein	11.02±0.46	6.6	16.01±0.11
Crude lipid	1.01±0.12	0.4	0.98±0.02
Crude fiber	2.36±0.04	1.5	3.56±0.14
Total carbohydrate	81.64	38.4	2.49±0.21

The moisture, ash, protein, lipid, and fiber results differ due to differences in the results and are shown by the difference in the results for moisture, ash, protein, lipid, and fiber different total carbohydrates may contain different seeds. There are different types and environmental conditions. Adopt an estimation and sample sampling method for estimating and sample taking.

TABLE 2: JACKFRUIT SEED FLOUR MINERAL COMPOSITION

COMPONENT	AMOUNT (mg/100gm)	SOURCE
Calcium	115.85	Abida Sultana et al. 2017
Magnesium	96.75	Abida Sultana et al. 2017
Potassium	705.71	Abida Sultana et al. 2017
Phosphorus	0.13-0.23	Tiwari et al. 2015
Iron	0.002-1.2	Tiwari et al. 2015
Lithium	0.05	Abida Sultana et al. 2017
Sodium	38.41	Abida Sultana et al. 2017
Ammonium	12.33	Abida Sultana et al. 2017

Potassium (705.71 mg/100 gm) and calcium (115.85). it found magnesium 96.75 mg per 100 g of Mg. This means that this mineral occurs in much larger quantities than other minerals. This is the crux of the matter. The sodium-potassium ratio was <1. Doctors advise against this condition of hypertension. There are many examples of this. Calcium is also a good source for bone formation.

JACKFRUIT SEED POWDER HEALTH BENEFITS

Jackfruit seeds come chips with health benefits that countless food entries mention, and many research attributes to this smooth variety of nutritious compounds of food that the taste buds will not resist wolfing down. However, jackfruit seeds are genuinely beneficial for health because they can help in digestion and have autitumorous properties that prevent illness. Moreover, they were extremely healthy. For example, Hajj et al. (2022) and other researchers found that jackfruit seeds contain iron, copper, zinc, magnesium, calcium, sodium, manganese, or potassium. They all perform a variety of functions, from laying down our bones to affecting the activity of muscles and nerves within our bodies and controlling the water balance in our bodies (Weyh et al., 2022). Jackfruit seeds contain a high content of carbohydrates, with protein levels in the seed kernel typically 10–15 percent. Because of its high amylose and protein content, jackfruit seed flour or starch may be more suitable for functional food applications than commercially available modified ingredients. Jackfruit seeds have two lectins, artocarpin and lectin, which bestow the seeds with some immune activity (Weyh et al., lectin, 2022). In addition, it has been determined to have adequate dietary fiber (Astutui et al. 2022) Greater consumption of dietary fiber is inversely associated with risk factors for blood pressure and other cardiovascular disease-related risk factors, and is associated with a lower risk of developing cardiovascular disease (Reynolds et al., 2022). The above figure shows how the functional materials in jackfruits, which are commonly used by numerous people around the world, provide divergent health benefits.

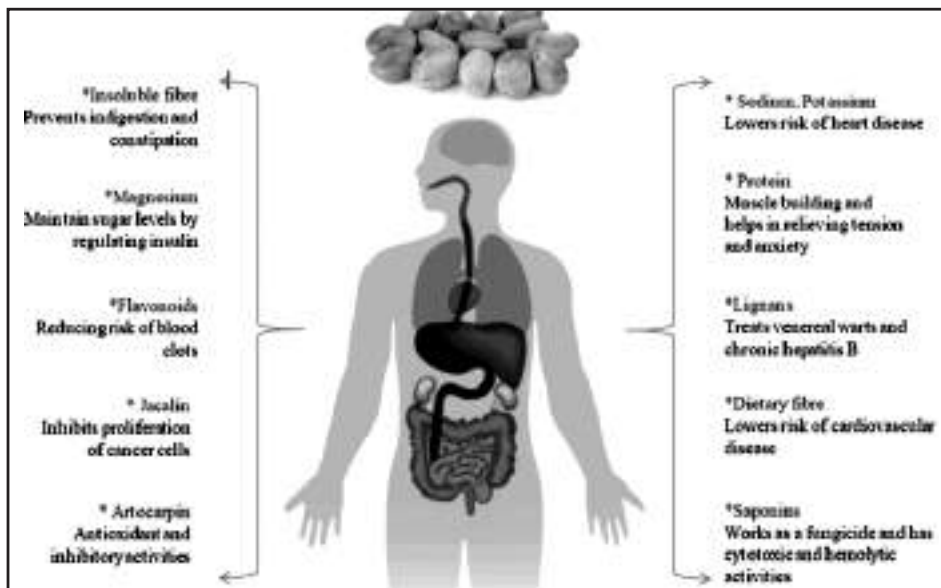


FIGURE 1- HEALTH BENEFITS OF JACK FRUIT SEED FOR THE HUMAN BODY

Jackfruit seeds contain jack seeds and are rich in several health benefits, including improved digestion and isoflavones, which have been shown to have anticancer properties. In addition, it is effective in wrinkle prevention. Jackfruit seeds contain bioactive compounds, such as isoflavones, lignans, and saponins, which have several health benefits. In addition to their bitter taste, jack seed sulfur and sulfur-containing compounds have antibacterial properties. Germinated jackfruit seeds exhibit antifungal, antibacterial, and immunoregulatory activities. Seeds can increase drug effectiveness in this manner. Jacalin, a lectin that is found in seeds, may determine the immune status of HIV/AIDS patients.

Jackfruit seeds can help hair growth, improve blood circulation into the fingers, and promote healthy digestion. According to Arpit and John (2015), this food has high starch and low calcium and iron content and is rich in vitamin B2. This seed is especially good for bones because of its magnesium, which is a necessary component in calcium absorption, and calcium is used to form a healthy bone structure, not brittle bones, which are prone to disorders such as osteoporosis (Maurya, 2016). Healthy flour made from seeds has medicinal effects, native elements, and some other useful components, making it difficult for nutritionists to promote them for large-scale applications in industry and food. Seeds mostly serve as replacements for potatoes. Blend seed flour into meal dishes. Roasted seeds are commonly used in the production of cakes. Roasted seeds have partially replaced Coca powder in cappuccinos to satisfy the rapidly growing demand for this beverage. Seeds are roasted, cooked, sprouted, or ground into flour. Seeds are popular in applications such as making tomato sauces and curries, syrups, or brine dishes.

CONCLUSION

Research indicates that products fortified with jackfruit have a significantly enhanced nutritional composition. These include high levels of ash, protein, dietary fiber, and phytochemicals. The incorporation of the correct amount of jackfruit seeds has been found to improve the physicochemical, textural, color, and sensory properties of a range of products. This review also examines the effect of jackfruit seed flour on various traditional product characteristics. More research is needed to develop cost-effective and effective methods for producing high-value items using jackfruit seed flour. Jackfruit seeds can be used only on a small domestic basis. The nutritional and medicinal value of jackfruit cannot be overlooked, and this has been proven in numerous studies. Thus, there is great potential for its utilization as a functional ingredient. It is essential to expand the application of jackfruit cultivation by conducting extensive research and raising awareness among consumers, industry, and policymakers. This study aims to highlight the nutritional and health benefits of jackfruit seeds, encourage large-scale cultivation of jackfruit trees in Odisha for food production, and foster the development of value-added products.

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