

PT. MOHAN LAL S.D. COLLEGE FOR WOMEN

SH. UPKAR KRISHAN SHARMA BLOCK

"आदर्श अनुशासन मर्यादा ईमानदारी तथा उच्च मानवीय
मूल्यों के बिना किसी का जीवन महान नहीं बन सकता।"



Pt. MOHAN LAL S.D. COLLEGE FOR WOMEN, GURDASPUR

A MULTI FACULTY POST GRADUATE INSTITUTE

Re - accredited with 'A' grade by NAAC (3rd cycle 2024)

IIC Ranking '3 Star' Rating by Ministry of Education 2024

Listed in the Tribune Guide to best colleges (25th April, 2025)

MANAGED BY: GGDSD COLLEGE SOCIETY, CHANDIGARH

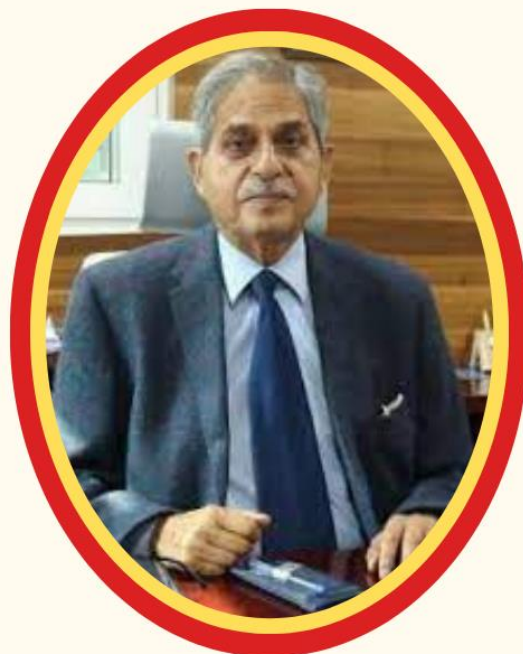
AFFILIATED TO: GURU NANAK DEV UNIVERSITY, AMRITSAR

OUR INSPIRING SPIRIT



PT. MOHAN LAL JI

FORMER EDUCATION, HOME AND FINANCE MINISTER, PUNJAB
FOUNDER PRESIDENT OF GGDSD COLLEGE SEC-32, CHANDIGARH
PT. MOHAN LAL S.D. COLLEGE FOR WOMEN, GURDASPUR
PT. MOHAN LAL S.D. SCHOOL, CHANDIGARH.



SH. UPKAR KRISHAN SHARMA JI

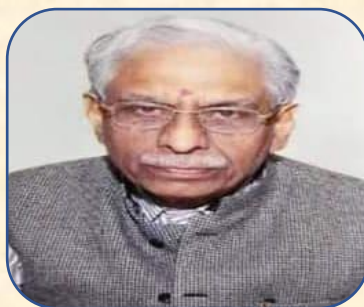
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E-MAGAZINE

‘DARPAN’



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GGDSD Society Chd.



Dr. PK Bajaj
General Secretary,
GGDSD Society Chd.



Sh. Hiramani Aggarwal
Chairman,
PTMLSD College, Gurdaspur.



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Chief Editor : Principal



Er. Surkhab Shelly
Editor

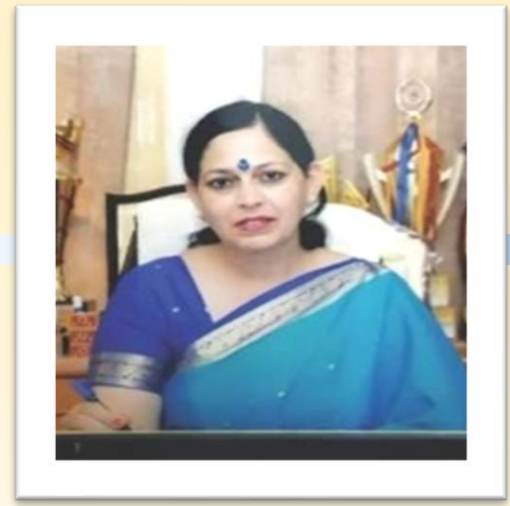


Dr. Khushboo
Editor



Mr. Ashwani
Technical Expert





Dear Sdians...

It gives me immense sense of fulfilment when I look at the monthly edition of college e-Magazine '**DARPAN**'. The essential purpose of e-magazine 'DARPAN' is to inform, engage and inspire faculty, students, parents, alumni and our stakeholders. This e-magazine endeavors to reflect the values and the long tradition of excellence of the institution itself. Throughout the year campus buzzes with various activities that makes learning experience at SD Gurdaspur, a unique one. The perpetual efforts of the faculty, students and clubs/societies of the college in keeping the campus alive are commendable. Workshops, conferences, competitions, rallies, sports, guest lectures, FDPs, PDPs and a great variety of activities that corroborate academic learning help our students to grow in the real sense.

I congratulate Er. Surkhab Shelly and Dr. Khushboo (editors) for giving practical shape to my idea of e-magazine and wish all the best for inspired and result oriented session.

Dr. (Mrs.) Neeru Sharma
Principal



REMEMBERING OUR REVERED FOUNDER



The 26th Death Anniversary of the founder President Late (Dr.) Pt. Mohan Lal Ji was observed by the college family. A floral tribute was paid to him by the College Principal, Management Committee members, Staff Secretary, office staff, Central Association Teacher Incharges, Head Girl and Vice Head Girl. To honor his legacy, the NSS unit and Central Association, in collaboration with Sangar Unnayan Foundation, distributed water bottles to flood-affected people, reflecting Pt. Mohan Lal Ji's ideals of service, compassion, and selfless action. The Youth Club and Music Department presented soulful bhajans. The gathering remembered his immense contribution in establishing the institution that continues to empower women through education. The college Principal highlighted his selfless service, nationalist ideals, and lifelong commitment to values. The program concluded with the college family offering floral tributes to the founder.

INTER-DEPARTMENTAL QUIZ



The Inter-Departmental Quiz was organized by the Jigyasa Quiz Club and Competitive Cell. The quiz was conducted in two stages. In the first stage, a preliminary written test was held for 20 students who had been shortlisted from various departmental quizzes conducted earlier. Based on the merit of this test, 12 students were selected for the main quiz where an oral quiz was conducted by the incharges. Team B emerged as the winner, followed by Team D in second place, Team C in third, and Team A in fourth. All the teams were awarded cash prizes by the Principal. The College Principal also conducted three rounds of the quiz. She encouraged the students to actively participate in such events as they help in preparing for competitive examinations. She congratulated the winners and appreciated the efforts of the incharges in successfully organizing the event.



COMMERCE XPRESS 2025



The PG Department of Commerce organised a two-day event 'Commerce Xpress 2025' with great enthusiasm and participation. The first day was dedicated to creativity and innovation, featuring activities that highlighted students' design and presentation skills. The events included a Product Packaging Challenge, where participants showcased their marketing sense and creativity through attractive packaging designs, a Logo Designing Competition that encouraged students to create unique and appealing brand identities and a Slogan Writing Contest, allowing them to express impactful business ideas in a few powerful words. The day proved to be highly engaging and offered a platform for students to demonstrate their artistic and strategic thinking abilities. The second day focused on communication and critical thinking skills. The sessions included Pick and Speak (Chit Box), which tested participants' spontaneity and confidence in speaking on random topics, a Group Discussion that encouraged analytical thinking and teamwork on contemporary business issues and an exciting Ad-Mad Show, where students presented innovative and humorous advertisements. Each event was designed to enhance creativity, communication and problem-solving skills. First 3 winners of each event were awarded with certificates and mementos by College Principal Dr. (Mrs.) Neeru Sharma. The enthusiasm and active participation of students made the day lively and successful, concluding the two-day event on a memorable note.



TALENT HUNT – ‘KHOJ EK PRAYAS’



The Youth Club organized a vibrant Talent Hunt event titled *Khoj Ek Prayas* to promote self-confidence, independence, and a healthy competitive spirit among students. The event featured a wide array of competitions including art and craft, music, dance, poetry recitation, debate, rangoli, modelling, cooking without fire, mehendi, and nail art. In music solo song, Ms. Kamalpreet secured the first position. In solo dance, Ms. Nimarsukhjot Kaur stood first, followed by Ms. Prabhnoor Kaur and Ms. Vishal Bharti. In group dance, the first position was bagged by Ms. Ekta, Ms. Payal, Ms. Palak, and Ms. Palwinder, while the second place went to Ms. Navdeep and Ms. Tarandeep, and the third place to Ms. Harman, Ms. Sukhman, Ms. Kirandeep, and Ms. Harmanpreet. In poetry recitation, Ms. Pavneet Kaur came first, Ms. Isha second, and Ms. Avneet third. Ms. Prabhnoor Kaur also secured the first position in elocution. In the cooking without fire category, Ms. Tanya Arora stood first, Ms. Manoj second, Ms. Ravneet third, and Ms. Gurleen received a consolation prize. In fine arts, Ms. Jasleen won first prize, Ms. Manjot second, Ms. Palwinder third, with Ms. Sandeep receiving a consolation. The rangoli competition saw Ms. Simranjeet and Ms. Manvir in first place, Ms. Ekta, Ms. Sukhpreet, and Ms. Aditi in second, and Ms. Jashanpreet, Ms. Simrandeep, and Ms. Lovepreet in third. In mehendi, Ms. Tanisha secured the first position, Ms. Aditi the second, and Ms. Harjeet the third. Ms. Gurleen received a consolation prize in nail art. In modelling, Ms. Pavneet Kaur was titled Miss Fresher, with Ms. Harmanpreet Kaur as the first runner-up and Ms. Vishal Bharti as the second runner-up. Special titles were awarded to Ms. Prabhnoor Kaur as Miss Intellectual and Ms. Skarma and Ms. Nimarsukhjot as Miss Well Dressed. The College Principal Dr. Neeru Sharma congratulated all participants for their spirited performances and extended heartfelt appreciation to Dean and Youth Club incharges. Food stalls set up by the Home Science Department added charm to the occasion. *Khoj Ek Prayas* proved to be a memorable celebration of talent, teamwork, and creativity.



MENSTRUAL HYGIENE AWARENESS PROGRAM



The Health Club in collaboration with Unicharm Sofy organized a Menstrual Hygiene Awareness Program and Sanitary Pad Distribution Drive with the purpose of promoting awareness about menstrual hygiene and ensuring accessibility to safe and hygienic sanitary products for students. Representatives Ms. Mehak and Ms. Prabhleen delivered an insightful lecture on menstrual hygiene, breaking taboos and proper usage and disposal of sanitary products. Free sanitary pads were distributed to students by the Unicharm Sofy team.

WORKSHOP ON BEST OUT OF WASTE



The Fashion Designing Department organized a one-day workshop on making kitchen aprons, napkins, mats, rags and coasters with the purpose of enhancing students' practical skills while promoting the sustainable use of fabric through creative upcycling.. The participants displayed creativity by experimenting with different designs, patterns and finishing styles. Their innovative ideas not only enhanced the look of the items but also reflected their artistic skills.



EXHIBITION CUM SALE



The Fashion Designing Department organized an exhibition cum sale under 'Learn and Earn' to celebrate the Teej festival and showcase the skills and creativity of the students with the purpose of promoting entrepreneurial skills and providing hands-on experience in marketing their handcrafted products. As part of the exhibition, students set up a handicraft shop and displayed their talent through items such as screen-printed apparel, decorated sleeves, stoles, dupattas, phulkari work, bangles, gift boxes, potli bags and various handicrafts.

WORKSHOP ON FABRIC PAINTING



The Fashion Designing Department in collaboration with the IIC, organized a one-day Fabric Painting Workshop. Students actively participated and learned about the types of fabrics suitable for painting, various fabric paints and brushes, different painting techniques and methods to fix colours to make the artwork washable and long-lasting. Each student received hands-on experience by creating their own designs on fabric items such as handkerchiefs, cushion covers, tote bags and T-shirts.



NATIONAL HANDLOOM DAY



The Fashion Designing Department commemorated National Handloom Day to honor India's rich textile heritage. As part of the celebration, a loom was installed to educate and inspire students about the traditional art of weaving. The event began with a brief introduction highlighting the importance of National Handloom Day. A demonstration on loom working was given by a handloom expert, Mr. Jaswinder Pal Singh. The initiative aimed to encourage appreciation for Indian handlooms. Overall, the installation of the loom was a meaningful addition to the celebration.

BOOK EXHIBITION



On the occasion of National Librarian Day, a Book Exhibition was organized in the college library. Around 5000 books were exhibited by Sai Book Depot and Jagriti Book Depot, covering subjects like general knowledge, reference, motivational literature, novels, plays, criticism, and religious texts in Hindi, English, and Punjabi. Principal Dr. Neeru Sharma, faculty members, and students enthusiastically participated and purchasing books for personal reading and academic needs, while the college library also expanded its collection with new titles. Dr. Neeru Sharma encouraged students to develop the habit of reading, and emphasized that books are true companions that shape one's personality.



LEARN AND EARN



The Home Science Department organized a cafeteria under the theme 'Learn and Earn', where students prepared a variety of delicious items such as Vada Pav, Pani Puri, Lemon Water and Bhel Puri. Teachers and students enjoyed the food and shared positive feedback. The event concluded on a successful note, filled with enthusiasm and motivation to host more such activities in the future.

WORKSHOP ON ZAIKA-E-BAHAR



The Department of Home Science, in collaboration with the IIC organized a culinary workshop Zaika-e-Bahar on traditional Saavan season delicacies. Students learned to prepare saawan dishes like Kheer, Malpua, Khoya Pura, and Ghevar, along with understanding their cultural significance. Students gained both practical cooking skills and insights into Indian food heritage.



WORKSHOP ON GLASS PAINTING



The Department of Home Science, in collaboration with the IIC organized a Glass Painting Workshop aimed at boosting creativity, enhancing artistic skills, and encouraging innovation among students. The workshop provided a hands-on platform for participants to explore the art of glass painting through the use of vibrant colors, intricate designs, and various techniques. Under the guidance of faculty members, students engaged deeply with the medium, creating beautiful artworks that reflected their imagination and individuality. The process not only nurtured their aesthetic sense but also helped improve their concentration, patience, and emotional expression. The workshop successfully fostered a sense of accomplishment, artistic freedom, and mindfulness, aligning with the broader goal of holistic student development.

EXHIBITION OF CLAY PLANTERS



The Celebration Cell of IIC in collaboration with the Economics Department organized an Exhibition of Clay Planters on the occasion of World Entrepreneurs Day. The event served as a creative platform for students to display their artistic skills, entrepreneurial ideas and sustainable practices through beautifully crafted clay planters. The exhibition highlighted the spirit of innovation, with students presenting unique designs that combined traditional art with modern concepts of eco-friendliness.



AN OUTREACH INITIATIVE



The IPR Cell and Social Media Cell of IIC organized an outreach programme at Thanewal village to interact with the local community under the theme of 'Innovation and Entrepreneurship'. The faculty members inspired villagers, especially women and youth, to explore self-employment opportunities, adopt innovative practices, and utilize digital tools to strengthen their livelihoods. Practical insights on rural entrepreneurship, women empowerment, and small-scale business ideas were shared to encourage the community to think creatively.

CONVERTING INNOVATION INTO STARTUP



A seminar on 'Prototype Validation: Converting Innovation into Startup' was organized by the IIC in collaboration with the IT Club. The resource person, Mr. Manav Mahajan, highlighted the importance of validating ideas before scaling them into ventures and elaborated on the effective use of Artificial Intelligence (AI) in entrepreneurship to streamline decision-making, analyze consumer behavior, and enhance efficiency. He emphasized that AI-driven insights reduce risks during the startup phase, refine prototypes, adapt to market needs, and help build sustainable business models.



WEBINAR ON 'EMPOWERING INVESTORS'



The PG Department of Commerce in collaboration with SEBI organized a webinar on the topic 'Empowering Investors through Awareness in Securities Market'. This program was conducted under the Financial Literacy Mission by SEBI and NSE. The resource person of the session was Mr. Dwijen Dutta who provided valuable insights on investor awareness, safe investment practices and the importance of financial literacy. The session proved to be highly beneficial in enhancing the knowledge of students regarding the securities market.

EVENT 'PITCH AND EXHIBIT: THE START-UP STAGE'



The IIC organized an event 'Pitch and Exhibit: The Start-up Stage'. The event featured a session by Zariya Silvers, led by Ms. Preeti Aggarwal, aimed at encouraging students to explore entrepreneurial thinking. A lecture on 'The Role of Innovation and Creativity' was delivered by Dr. Dinesh Sharma, IIC Cell Coordinator. Dr. Dinesh Sharma highlighted how small ventures can develop into sustainable businesses through strategic planning and the use of digital marketing tools.



TEEJ FESTIVAL



The Punjabi Department and Heritage Club organized a vibrant Teej Festival in the college premises. The celebration featured a variety of attractions including stalls of traditional Sawan delicacies, the Teej Queen competition, mehndi and bangle stalls, colorful chunis and floral decorations, Giddha, folk drama and traditional dances. The beautifully decorated Sajji Pingh with colorful flowers was among the main highlights of the Teej festival. A thought-provoking play depicting the vanishing aspects of Punjabi culture was also presented by the students, earning much appreciation from the audience. The Miss Teej competition saw Prabhleen Kaur crowned as Sunakhi Mutyar, Kumari Aditi awarded for Most Beautiful Dress, Miss Kiran honored as Queen of Giddhas, and Kumari Sneha crowned as Queen of Teej. The winners were felicitated by Principal Dr. Neeru Sharma with gifts and ornaments representing Punjabi culture.

WORLD ENTREPRENEURS' DAY 2025



The PG Department of Commerce celebrated World Entrepreneurs' Day 2025 under the IIC and Enactus Club. Students enthusiastically participated in a Product Packaging Challenge where they showcased innovative ideas and displayed their creativity through an exhibition which drew great appreciation from both students and staff who admired the unique efforts. The event encouraged entrepreneurial thinking and innovation among learners.



SHRI KRISHNA JANMASHTAMI



The Hindi Department of the college actively participated in Shri Krishna Janmashtami Mahotsav organised by Sanatan Chetna Manch, Gurdaspur. Mrs. Punita Sehgal, Head of Department, served as judge, while Hindi department students Ms. Aastha and Ms. Lavanya Jarewal anchored the event with confidence and grace. The program included devotional songs, dances and cultural presentations dedicated to Lord Krishna.

NATIONAL SPORTS DAY



The Sports Club and NSS Unit celebrated National Sports Day to honour hockey legend Major Dhyan Chand, with great zeal. The programme began with a tribute led by the College Principal who inspired students to follow values of discipline, teamwork and dedication. A documentary on Major Dhyan Chand ji was presented by Mrs. Gagandeep Kaur (HOD, Physical Education) which was followed by a talk on fitness and importance of a healthy lifestyle. A Fit India Pledge was conducted by Mrs. Samita Khajuria (NSS Programme Officer), while Sh. Parshotam Sharma (Volleyball Coach) and Ms. Aruna (Basketball Coach) shared useful tips on maintaining fitness.



INDEPENDENCE DAY



The Celebration Cell of IIC and NSS Unit also celebrated 79th Independence Day with great enthusiasm. As part of Azadi Ka Amrit Mahotsav, activities like 'Veeron Ka Vandan' and 'Meri Mati Mera Desh' were organized. During 'Veeron Ka Vandan' activity, NSS volunteers beautifully decorated earthen lamps, which were then lit by the College Principal. Everyone joined together to pay heartfelt tributes to the martyrs of India's freedom struggle by folding hands in reverence and offering flowers. In another activity, participants held soil in their hands as a symbolic gesture of respect and love for their motherland. During this celebration, all teachers and students also took their selfies with Tiranga. A pledge ceremony was also organized where students took an oath to uphold the spirit of harmony and remain committed to peace and integrity.

A celebration dedicated to patriotism was organised in college by the Patriotic Club. The club hosted vibrant performances including choreography, patriotic songs and dance. A plantation drive under the theme 'Ek Ped Maa Ke Naam 2.0' was also organized in the College campus. A total of 30 students planted native and ornamental saplings in their localities, pledging to nurture them and spread awareness about the importance of trees for a sustainable future.

The Youth Club actively participated in the Independence Day celebrations organized at Government College, Gurdaspur. A group of 50 students from our college performed Gidda and showcased the rich cultural heritage of Punjab. Ms. Kulwinder Kaur, Youth club incharge served as the head instructor at the district level. On this occasion, our college was honored with a Certificate of Appreciation from Shri Hardeep Singh Mundian, Hon'ble Minister of Revenue, Rehabilitation and Disaster Management, Punjab in recognition of the students' outstanding performance. The College Principal Dr. Neeru Sharma extended warm greetings on the 79th Independence Day to the entire SD family. The program concluded with the singing of the National Anthem.



INTERNATIONAL YOUTH DAY



The Legal Literacy Club and Sociology Department organized a lecture on the occasion of International Youth Day. The keynote speakers were Advocate Kiran Prabha and Mr. Rahul Sabharwal (PLV). Advocate Kiran Prabha highlighted that youth are the greatest strength of any nation and can shape society with education, morality, and discipline. Mr. Rahul Sabharwal emphasized that youth must take the right decisions, stay away from drugs, and contribute to nation-building, as they are the future of the country. Principal Dr. Neeru Sharma, in her address, said the program aimed at determining the role of youth in society, nation, and the world, in line with the 2025 theme "Youth for a Sustainable Future."

SADBHAVANA DIWAS



The NSS Unit on the occasion of Sadbhavana Diwas. This day aims to promote the spirit of peace, unity, harmony, and brotherhood among people. The NSS volunteers took the Oath of Harmony in the college, pledging to rise above differences of religion, caste, and language and to continue working for the unity and integrity of the nation.



WORLD SENIOR CITIZEN DAY



On the occasion of World Senior Citizens Day, the Department of Sociology organized a one-day seminar on the 'Empowering Elderly Voices for an Inclusive Future'. The event aimed to honor the contributions of senior citizens to society while fostering intergenerational understanding and inclusivity. The seminar commenced with a warm floral welcome extended to the esteemed guests by Principal Dr. Neeru Sharma, who, in her opening address, emphasized the timeless relevance of elders in shaping society through their wisdom, resilience, and lived experiences. The seminar featured distinguished speakers who brought rich perspectives from their diverse professional backgrounds. Dr. Surinder Pannu, a renowned gynecologist from Pannu Nursing Home, Gurdaspur, spoke about the importance of emotional and physical well-being among elderly women, drawing from both medical knowledge and community experiences. Shri K. K. Sharma, Retired General Manager of Dhariwal Mills, shared insights from his career journey, focusing on the importance of adaptability, integrity, and continuous learning. Shri Jagdish Arora, Retired Principal of DAV School, reflected on the evolving role of elders in education and family life, urging the younger generation to uphold values of respect and empathy in their interactions. Adding a literary and emotional dimension to the event, Dr. Rama Gandotra, Head of the Department of Sociology, presented a thought-provoking and heartfelt self-composed poem titled "*Jeene Ki Kala*", which was met with resounding appreciation and applause from the audience. The poem beautifully encapsulated the essence of aging gracefully and the art of living with dignity and purpose. The seminar fostered a reflective and respectful atmosphere, prompting students to view aging not as a decline but as a powerful stage of life enriched with experience and insight. It also opened a meaningful dialogue about the need for inclusive policies, community support, and family dynamics that empower senior citizens to lead active, respected, and fulfilling lives. The event concluded with a formal vote of thanks and the presentation of mementos to the guest speakers as tokens of appreciation for their valuable contributions. The seminar served as a heartfelt tribute to senior citizens and a reminder of their indispensable role in building a compassionate and inclusive society.



EVENT ON MENTAL HEALTH FOR STARTUPS



The Psychology Department, in collaboration with the IIC organized an event on 'Mental Health for Startups' with Ms. Parul Chandel, Counselling Psychologist and Founder of Mansik – Evolve to Thrive, as the speaker. The event addressed psychological challenges faced by entrepreneurs, such as fear of failure, self-doubt, stress and societal pressures. Ms. Parul shared practical strategies to build resilience, shift mindset and maintain emotional well-being. The session provided participants with valuable insights on balancing mental health with the demands of entrepreneurship



CYBER SECURITY

Cybersecurity, the practice of protecting computer systems, networks, and data from unauthorized access, damage, or theft, is crucial in today's digital age, encompassing various aspects like network security, cloud security, and identity management.

What is Cybersecurity?

Definition:

Cybersecurity is the practice of defending computers, servers, mobile devices, electronic systems, networks, and data from malicious attacks.

Importance:

It's essential for protecting individuals, businesses, and government Cyber security is a wide field covering several disciplines. It can be divided into seven main pillars:

The different types of cyber security:

1. Network Security

Most attacks occur over the network, and network security solutions are designed to identify and block these attacks. These solutions include data and access controls such as Data Loss Prevention (DLP), IAM (Identity Access Management), NAC (Network Access Control), and NGFW (Next-Generation Firewall) application controls to enforce safe web use policies.

Advanced and multi-layered network threat prevention technologies include IPS (Intrusion Prevention System), NGAV (Next-Gen Antivirus), Sandboxing, and CDR (Content Disarm and Reconstruction). Also important are network analytics, threat hunting, and automated SOAR (Security Orchestration and Response) technologies.

2. Cloud Security

As organizations increasingly adopt cloud computing, securing the cloud becomes a major priority. A cloud security strategy includes cyber security solutions, controls, policies, and services that help to protect an organization's entire cloud deployment (applications, data, infrastructure, etc.) against attack.

While many cloud providers offer security solutions, these are often inadequate to the task of achieving enterprise-grade security in the cloud. Supplementary third-party solutions are necessary to protect against data breaches and targeted attacks in cloud environments.

3. Endpoint Security

The zero-trust security model prescribes creating micro-segments around data wherever it may be. One way to do that with a mobile workforce is using endpoint security. With endpoint security, companies can secure end-user devices such as desktops and laptops with data and network security controls, advanced threat prevention such as anti-phishing and anti-ransomware, and technologies that provide forensics such as endpoint detection and response (EDR) solutions.

4. Mobile Security

Often overlooked, mobile devices such as tablets and smartphones have access to corporate data, exposing businesses to threats from malicious apps, zero-day, phishing, and IM (Instant Messaging) attacks. Mobile security prevents these attacks and secures the operating systems and devices from rooting and jailbreaking. When included with an MDM (Mobile Device Management) solution, this enables enterprises to ensure only compliant mobile devices have access to corporate assets.

5. IoT Security

While using Internet of Things (IoT) devices certainly delivers productivity benefits, it also exposes organizations to new cyber threats. Threat actors seek out vulnerable devices inadvertently connected to the Internet for nefarious uses such as a pathway into a corporate network or for another bot in a global bot network.

IoT security protects these devices with discovery and classification of the connected devices, auto-segmentation to control network activities, and using IPS as a virtual patch to prevent exploits against vulnerable IoT devices. In some cases, the firmware

of the device can also be augmented with small agents to prevent exploits and runtime attacks.

6. Application Security

Web applications, like anything else directly connected to the Internet, are targets for threat actors. Since 2007, OWASP has tracked the top 10 threats to critical web application security flaws such as injection, broken authentication, misconfiguration, and cross-site scripting to name a few.

With application security, the OWASP Top 10 attacks can be stopped. Application security also prevents bot attacks and stops any malicious interaction with applications and APIs. With continuous learning, apps will remain protected even as DevOps releases new content.

7. Zero Trust

The traditional security model is perimeter-focused, building walls around an organization's valuable assets like a castle. However, this approach has several issues, such as the potential for insider threats and the rapid dissolution of the network perimeter.

As corporate assets move off-premises as part of cloud adoption and remote work, a new approach to security is needed. Zero trust takes a more granular approach to security, protecting individual resources through a combination of micro-segmentation, monitoring, and enforcement of role-based access controls.ents from cyber threats, including data breaches, malware, and ransomware attacks.

The Growing Threat Landscape

The frequency and sophistication of cyber threats have surged dramatically over the past decade. Cyberattacks can range from simple phishing scams to complex ransomware attacks that cripple entire infrastructures. High-profile breaches, such as the Equifax data breach in 2017 and the Colonial Pipeline ransomware attack in 2021, highlight the devastating impact these threats can have on businesses and societies.

Key Cybersecurity Threats

Phishing: Deceptive attempts to obtain sensitive information through fraudulent emails or websites.

Ransomware: Malicious software that locks data and demands payment for its release.

Malware: Software designed to damage, disrupt, or gain unauthorized access to systems.

Man-in-the-Middle Attacks: Interception of communications between two parties without their knowledge.

Denial-of-Service (DoS) Attacks: Overwhelming a system with traffic to make it unavailable to users.

Cybersecurity Best Practices

Strong Passwords: Use complex, unique passwords and consider password managers for better security

Regular Updates: Keep software, operating systems, and applications updated to patch vulnerabilities.

Multi-Factor Authentication (MFA): Add an extra layer of security beyond just passwords.

Employee Training: Educate staff on recognizing phishing attempts and other social engineering tactics.

Data Encryption: Protect sensitive data both in transit and at rest.

The Role of Governments and Organizations

Governments play a crucial role in setting regulations and standards for cybersecurity, while organizations are responsible for implementing security measures and incident response strategies. Collaboration between public and private sectors is vital to combat the evolving threat landscape effectively.

The Future of Cybersecurity

As emerging technologies like artificial intelligence, the Internet of Things (IoT), and quantum computing reshape the digital world, cybersecurity will continue to evolve. The integration of AI in cybersecurity can enhance threat detection and response, but it also introduces new risks if misused by malicious actors.

Conclusion

Cybersecurity is not just an IT issue; it's a fundamental aspect of modern life that affects everyone. By staying informed, adopting best practices, and fostering a culture of security awareness, we can better protect ourselves against the ever-growing cyber threats.

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RAMANDEEP
BCA SEM 6TH
ROLLNO:2914

INDIA'S E-COMMERCE BOOM: PROJECTED GROWTH AND EMERGING TRENDS

Introduction

India's e-commerce sector is experiencing unprecedented growth, reshaping the nation's retail landscape. Recent reports forecast a significant expansion, with the market size projected to reach \$550 billion by 2035, growing at a compounded annual growth rate (CAGR) of 15% from \$125 billion in 2024. This surge is driven by factors such as increasing internet penetration, widespread smartphone adoption, and a tech-savvy young population. India's e-commerce sector is poised for substantial growth, driven by increasing internet penetration, rising disposable incomes, and a growing consumer preference for online shopping.

Understanding the meaning of E-commerce in business

E-commerce refers to the buying and selling of goods and services through the internet. It involves any kind of commercial transaction conducted online. It has revolutionized the way businesses operate and how consumers shop. It is an integral part of the modern economy, enabling fast, efficient, and global trade. With the continuous advancement of technology, E-commerce is expected to evolve further, making transactions even more seamless and secure.

Projected growth of E-commerce market

India's e-commerce market is expected to reach a significant value, growing at a compound annual growth rate (CAGR) of approximately 20% over the next few years. Several factors contribute to this impressive growth. Firstly, the increasing internet penetration, particularly in rural areas, is expanding the consumer base for online retailers. Secondly, the rise in disposable incomes is enabling more Indians to afford online purchases. Thirdly, the

growing adoption of smartphones is making online shopping more convenient and accessible. Finally, the increasing trust in online payment systems is further encouraging online transactions.

India is a mobile-first economy, with mobile commerce accounting for 80% of e-commerce transactions, driven by widespread smartphone use and low fixed-line broadband penetration.

Key players in the Indian e-commerce market include established giants like Amazon and Flipkart, as well as a host of emerging domestic companies that are rapidly gaining market share.

The COVID-19 pandemic acted as a major catalyst for e-commerce adoption in India, with many consumers turning to online shopping for the first time due to lockdowns and social distancing measures. This has led to a significant increase in online sales across various product categories, and has accelerated the overall growth of the market.

Projected Growth Trajectory: Factors Driving Expansion and Future Forecasts

Future forecasts for the Indian e-commerce market paint a picture of continued robust growth. Industry analysts predict that the market will reach unprecedented valuations within the next few years. Several key factors will drive this expansion, India boasts the second-largest internet user base globally with 881 million users.

India is projected to reach over 900 million active internet users by 2025, with a significant 56% of new users hailing from rural areas. This is coupled with a notable rise in female internet users, who will account for 65% of new users, marking a shift towards inclusivity and empowerment. The growing digital presence also highlights how media affects the share market, as increased access to information influences investment decisions and market trends

Another key driver of e-commerce growth in India is the increasing popularity of mobile commerce (m-commerce). With the vast majority of Indians accessing the internet through their smartphones, m-commerce is becoming the preferred way for many consumers to shop online. E-commerce companies are investing heavily in their mobile apps and websites to provide a seamless and convenient shopping experience for mobile users.

The increasing availability of financing options, such as buy-now-pay-later (BNPL) schemes, is also helping to drive e-commerce growth in India. These financing options are making it easier for consumers to afford expensive products online and are encouraging them to make larger purchases. The future of e-commerce in India is promising, with projections indicating annual growth rates of 18% through 2025. By 2030, India is anticipated to emerge as the third-largest consumer market globally, underlining the vast opportunities and potential that lie ahead of the e-commerce sector in the country.

The rise of emerging technologies like augmented reality, artificial intelligence, and machine learning will revolutionize the way consumers interact with e-commerce platforms, leading to more personalized and immersive shopping experiences. Additionally, as the Indian economy continues to grow and consumer spending power increases, coupled with the facilitation of 100% FDI in B2B e-commerce and marketplace, India's e-commerce ecosystem is poised for sustained growth and innovation.

Current and Emerging Trends

Notably, the rural internet subscriber base is growing rapidly, currently standing at 375.66 Mn subscribers, indicating the democratization of online access. Close to 100% of pin codes in India have seen e-commerce adoption. As per the study titled E-Commerce Logistics: Unveiling Data Driven Shopping Patterns by ISB Institute of Data Science and Ecom Express, Tier-

2, Tier-3, Tier-4 cities, and beyond account for the largest volume of online orders, marking a significant shift in consumer behaviour, underlining the ease in shopping, availability of choices, and efficient supply chain infrastructure.

The first-of-a-kind study revealed that one of the most prominent growth hotspots is Port Blair. The fashion and accessories category dominates the e-commerce market, representing 60% of transactions by volume, followed by beauty, cosmetics and toiletries (11%); electronic gadgets (10%); home, kitchen & office (8%); and health, sports and fitness (5%). The Government e-Marketplace (GeM) has played a pivotal role in facilitating government procurement, crossing an impressive INR 4 Lakh Cr in Gross Merchandise Value and doubling its business in a year. Moreover, the Online Network for Digital Commerce (ONDC) has democratized e-commerce by creating an open and inclusive network where buyers and sellers can connect directly, thus empowering small businesses, especially in rural areas.

In two years of its launch, ONDC has onboarded over 2.3 Lakh diverse sellers and service providers, Social commerce is another significant trend, leveraging the power of social media platforms like Facebook, Instagram, and WhatsApp to drive online sales. Other emerging trends include the rise of vernacular e-commerce, and machine learning (ML) to personalize the shopping experience and improve customer service.

Conclusion

India's e-commerce landscape is poised for exponential growth, supported by a tech-savvy population, government reforms, and robust investments from global players. Mobile commerce, digital wallets, and regional expansion will be key drivers of the next phase of growth.

Firstly, the rapid expansion of internet connectivity, especially in rural areas, is broadening the potential customer base. Additionally, the proliferation of smartphones and affordable data plans has facilitated easy

access to online shopping platforms. The increasing digitization of payments through platforms like UPI (Unified Payments Interface) has simplified transactions, fostering trust and convenience among users. Moreover, the emergence of e-commerce marketplaces offering a wide range of products at competitive prices and regular sales has attracted consumers from diverse demographics.

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