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**मीडिया, साहित्य और राष्ट्रवाद**

**MEDIA, LITERATURE AND NATIONALISM**

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## समाज मीडिया व साहित्य के समक्ष वर्तमान चुनौतियाँ

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'साहित्य' शब्द 'सहित' में यत् प्रत्यय लगकर बना है, जिसका अर्थ है शब्द और अर्थ का यथावत् सहभाव अर्थात् साथ होना। साहित्य वह है, जिसमें शब्द और अर्थ सहित रूप में रहते हैं- 'सहितयोः शब्दार्थयोः भावः साहित्यम्।' पाश्चात्य विद्वानों ने भी 'साहित्य' को पारिभाषित किया है। श्री हेनरी हड्सन के अनुसार - "It is fundamentally an expression of life through the medium of language." अर्थात् साहित्य मूलतः भाषा के माध्यम द्वारा की गई जीवन की अभिव्यक्ति है।<sup>1</sup> एमर्सन महोदय के मतानुसार 'साहित्य भव्य विचारों का लेखा है। हड्सन काव्य को जीवन से सम्बन्धित करते हुए कहते हैं- 'कविता का जन्म जीवन से हुआ है। जीवन से उसका घनिष्ठ सम्बन्ध है और जीवन के लिए उसका अस्तित्व है।'<sup>2</sup> मैथ्यू आर्नल्ड ने साहित्य को जीवन की व्याख्या कहा है- 'Literature is the criticism of life.'

मनुष्य ने सामाजिक जीवन अपनाकर अपनी भाषा माध्यम से अपने अनुभवों को ज्ञान रूप में संचित करने का प्रयास किया। इसे ही आगे चलकर 'साहित्य' कहा जाने लगा। आचार्य महावीर प्रसाद द्विवेदी ने भी कहा है- "ज्ञानराशि के संचित कोष का नाम ही साहित्य है।" आचार्य रामचन्द्र शुक्ल के मत में "प्रत्येक देश का साहित्य वहाँ की जनता की चितवृत्ति का संचित प्रतिबिम्ब होता है।" आचार्य हजारी प्रसाद द्विवेदी के अनुसार "सारे मानव समाज को सुन्दर बनाने की साधना का ही नाम 'साहित्य' है। वस्तुतः 'साहित्य' शब्द बहुत विस्तृत अर्थ संजोये हुए है। साहित्य 'सर्वोत्तम विचार की उत्तमोत्तम लिपिबद्ध अभिव्यक्ति' कहा जा सकता है। साहित्य की भावना और विचारों की मधुर अभिव्यक्ति है। साहित्य जीवन में विषाद के क्षणों में संतोष और सुख के क्षणों में स्फूर्ति प्रदान करता है। जीवन में उसकी उपादेयता वांछनीय है।

साहित्य और समाज का घनिष्ठ सम्बन्ध है। साहित्य सांस्कृतिक धरोहर का संरक्षक होता है। संस्कृति वास्तव में अनुभूतियों तथा विचारों के संग्रह का स्थान है।<sup>3</sup> भारतीय संस्कृति मानव जीवन के समानुपातिक सर्वांगीण विकास की दृष्टि से बहुत महत्वपूर्ण है। समस्त उदात्त मानवीय भावों के संरक्षण के कारण यह संस्कृति प्राचीनतम होने पर भी आज भी युगदृष्टि से उतनी ही मूल्य सम्पन्न है। भारत में एक बहुलतायुक्त समाज है। यहाँ अनेक धर्म, संस्कृति, भाषा और प्रजाति के लोग निवास करते हैं। इन सब विविधताओं का प्रभाव साहित्य पर भी पड़ा है। अनेकता में एकता भारत की विशेषता है। यहाँ का साहित्य प्रेरणादायी है। डॉ. मोहन अवस्थी साहित्य की उपयोगिता उद्घाटित करते हुए कहते हैं- "जिस देश का साहित्य जिन्दगी के प्रेरक तत्वों से प्राणवान् है, वह देश संकटों से जूझता हुआ भी अपनी उर्ध्वगामिनी जीवनी शक्ति का इजहार बराबर करता रहेगा। इसलिए देश को ऊँचा उठाना है तो नवयुवकों को वहाँ के साहित्य से परिचित कराया जाना चाहिए।"<sup>4</sup>

सभ्यता के विकास के कारण प्रत्येक व्यक्ति समाज का अंग बन गया है। अतः साहित्य में वैयक्तिक जीवन के साथ-साथ सामाजिक जवन का समावेश आवश्यक हो गया है। सुप्रसिद्ध समाजशास्त्री श्यामाचरण दुबे का मानना है कि समकालीन भारतीय समाज परिवर्तन के एक संवेगात्मक उद्वेग से गुजर रहा है।<sup>5</sup> वर्तमान भारत में विपरीत प्रकार के सामाजिक मूल्य और सामाजिक अभिवृत्तियाँ पायी जाती हैं। आज व्यक्ति समूह, समाज और देश के हित के दृष्टिकोण से विचार नहीं करके स्वयं के हित के दृष्टिकोण से सोचता है। तेजी से बदलती हुई परिस्थितियों के साथ व्यक्ति समायोजन नहीं कर पा रहा है। उसके सम्मुख लक्ष्य और साधनों की अस्पष्टता है।<sup>6</sup> ऐसी परिस्थितियों में साहित्यकार के व्यक्तित्व का प्रभावित होना स्वाभाविक है।

श्रेष्ठ साहित्यकार समाज को मार्गदर्शित कर उन्नति के पथ पर अग्रसर करता है। स्वतन्त्रता आन्दोलन के समय साहित्यकारों ने जन-चेतना फैलाने का सराहनीय कार्य किया था। साहित्यिक रचना मात्र मनोरंजन के निमित्त ही विरचित नहीं होती बल्कि वह सामाजिक परिष्करण के लिए भी लिखी जाती है। साहित्य और समाज का सम्बन्ध मंगलकारी है। साहित्य और समाज दोनों का शिलान्यास आत्म-रक्षा और आत्मोन्नति की कामना पर ही होता है।

यथार्थ में साहित्य समाज की धारा के साथ स्वयं भी प्रभावित होता है। अधुनातन साहित्य में एक ओर नारी-स्वातन्त्र्य का आग्रह दिखाई पड़ता है तो दूसरी ओर यौन-स्वातन्त्र्य के नाम पर उसे देह का पुलिन्दा मानकर चित्रित किया जा रहा है।<sup>7</sup> साहित्यकारों का यह परम कर्तव्य है कि वह समाज की असंगतियों एवं उसके कुरूप का अन्वेषण करे तथा उनका समाधान



लोकप्रिय नहीं है।<sup>33</sup> श्री सुधीर पचौरी के अनुसार आज देश के दस सबसे ज्यादा बिकने वाले अखबारों में छह हिन्दी के हैं। भारत में मीडिया एक बड़ा उद्योग है। आर्थिक उदारीकरण के इस दौर में भाषाई मीडिया में आया 'बूम' मीडिया के विकास का एक नया चरण है। लेकिन यह 'समस्याहीन' नहीं है। इस प्रक्रिया में बहुराष्ट्रीयकरण और कॉरपोरेटीकरण छोटे-मझोले मीडिया का खतरा बन सकते हैं। मार्केट द्वारा कंटेंट का निर्धारण पत्रकारिता की प्रक्रिया को गहरे और नकारात्मक ढंग से प्रभावित करने लगा है।<sup>34</sup> वैश्वीकरण का दौड़ एवं भूमण्डलीकरण के प्रभाव से हिन्दीभाषा ही नहीं बल्कि अर्थ भावनाएँ भी अछूती नहीं रही हैं। विभिन्न वेब पोर्टलों पर, पत्र-पत्रिकाओं में प्रस्तुत भाषा एवं साहित्य पर भी वैश्वीकरण का परिणाम देखा जा सकता है। पत्र-पत्रिकाओं में प्रकाशित सामग्री तथा पुस्तकों के आशय एवं विषयों पर भी नई तकनीक के साथ-साथ वैश्विक परिदृश्य दिखाई देता है। वर्तमान साहित्य के विषय एवं आशय भी नए सिरे से प्रस्तुत हो रहे हैं। इंटरनेट पर प्रकाशित अत्यधिक रचनाओं के विषय भी भूमण्डलीकरण से प्रभावित हैं।<sup>35</sup> भूमण्डलीकरण के कारण कलम पर बाजारवाद के खतरे बढ़ रहे हैं। बाजारवाद पूँजीवाद सभ्यता का ही नया रूप है, जिसे 'नवपूँजीवाद' भी कह सकते हैं। बाजारवाद के खतरों से सावचेत करते हुए श्री जीवन सिंह लिखते हैं - "बाजारवाद का सबसे खतरनाक खेल है-इन्सानी अनुभूतियों का पूरी तरह हनन कर व्यक्ति को मशीन में परिवर्तित कर देना। आज चारों तरफ मशीनी मनुष्यों के चेहरे नज़र आते हैं जिनके उठपर मानवीय अनुभूतियों की चमक गायब है।<sup>36</sup> बाजारवाद का साहित्य, समाज व मीडिया पर भी प्रभाव पड़ा है। बाजारवाद के प्रभाव को रेखांकित करते हुए प्रो. कृष्णदत्त पालीवाल कहते हैं-"हालत यह है कि भारत का दूरदर्शन हर समय उपभोक्ता समाज का प्रसार कर रहा है। रंगीन नारी छवियों और भटकते मुस्तंडों से भोग सामग्री के लिए ललचाया जा रहा है। इस प्रदर्शन, विज्ञापनबाजी से समाज में भोग लिप्सा, सेक्स लिप्सा, पनप रही है। टेलीविजन की सूर्पनखाएँ कभी स्वयंवर के सीरियल चलाती हैं तो कभी साड़ी उतार देहवाद का नंगा नृत्य करती मिलती हैं। इसी पूरी स्थिति ने जीवन और समाज से गंभीर साहित्य, कला, दर्शन और विचार का अंत कर दिया है।"<sup>37</sup>

दूरदर्शन पर आरम्भ में 'हम लोग', 'बुनियाद', 'चन्द्रकांता', 'रामायण', 'महाभारत', 'तमस', 'चरित्रहीन', 'नीम का पेड़', 'कब तक पुकारूँ', 'राग दरबारी', 'गण देवता' जैसे साहित्यिक कृतियों पर आधारित धारावाहिक प्रसिद्ध हुए, किन्तु बाद में टी.वी. पर साहित्य हाशिए में चला गया। कथा धारावाहिक की जगह 'रियलिटी शो' ले चुके हैं। श्री सुरेन्द्र उनियाल के अनुसार, 'टी.वी. पर साहित्य के हाशिए पर चले जाने का जो प्रत्यक्ष कारण समझ में आता है, वह है -व्यावसायिक दबाव। दरअसल निजी चैनलों के आने के बाद इन चैनलों और धारावाहिक निर्माताओं को आपस में ही व्यावसायिक प्रतिद्वंद्विता का सामना करना पड़ा। टी.आर.पी. (टी.वी. रेटिंग प्वाइंट) के कारण साहित्य टेलीविजन पर उपेक्षित होने लगा।<sup>38</sup>

सिनेमा के माध्यम से साहित्यिक कृतियों का प्रचार-प्रसार हुआ है। 'गोदान', 'गबन', 'निर्मला', 'शतरंज के खिलाड़ी', 'तीसरी कसम' जैसी साहित्यिक कृतियों पर फिल्मों भी बनी। 'जगद्गुरु शंकराचार्य' तथा 'मुद्राराक्षसम्' जैसी संस्कृत की कृतियों पर भी संस्कृत में फिल्में निर्मित हुईं, किन्तु लोकप्रिय नहीं हो सकी। 'अर्द्धसत्य', 'आक्रोश', 'माया मेमसाहब', 'मिर्च मसाला', 'गंगाजल' आदि श्रेष्ठ कलात्मक फिल्मों को व्यावसायिक फार्मूला प्रधान फिल्मों की प्रतिस्पर्धा ने अधिक समय तक टिकने नहीं दिया। सिनेमा सामाजिक परिवर्तन का सशक्त जन संचार माध्यम है, किन्तु यह भी बाजारवाद के मायाजाल में फँसकर व्यावसायिकता की भेंट चढ़ गया। फिल्म निर्माण की दृष्टि से भारत का विश्व में चौथा स्थान है। भारतीय फिल्मों में अरबों की लगी पूँजी का वास्तविक लोण भारतीय जनता को मिल सका।<sup>39</sup> असहाय आम व्यक्ति की पीड़ा को व्यक्त करते हुए कवि रमेश खत्री मीडिया से प्रश्न करते हैं-"दूर दराज के गाँव का मजदूर-किसान/आज भी उतना ही असहाय/मीडिया की कलाबाजी/आखिर कौन से गुल खिलाने को तत्पर?"<sup>40</sup>

मीडिया की कलाबाजी पर क्या कहें? साहित्य की अभिव्यक्ति पर क्या कहें? क्या चुप रहें? वरिष्ठ कवि गोविन्द माथुर के शब्दों में यही कहा जा सकता है - 'सोचता हूँ चुप रहूँ/पर कुछ भी नहीं बोलने को भी/अपमान समझते हैं लोग।'<sup>41</sup>

जन संचार प्रौद्योगिक ने अनेकानेक सुविधाएँ प्रदान की हैं तो कई प्रकार की चुनौतियाँ भी खड़ी कर दी हैं। आज मीडिया पूँजीपतियों के नियंत्रण में है। फलस्वरूप मूल्यहीन पत्रकारिता को बढ़ावा मिल रहा है। आर्थिक लाभ कमाने के लिए मीडिया का प्रयोग किया जा रहा है। राजकुमारी डायना, मोनिका लेविंस्की तथा भंवरी देवी से सम्बन्धित प्रेम-रोमांस व सेक्स-स्केण्डल छह-छह माह तक मीडिया में छाये रहते हैं। इंटरनेट अश्लीलता की चरम सीमा को छूने में मददगार बन रहा है। टी.वी.चैनल भी नारी देह प्रदर्शन करने में गर्व महसूस करता है। मीडिया की नकारात्मक भूमिका पर टिप्पणी करते हुए डॉ. अर्जुन तिवारी कहते हैं-"चैनलों के अश्लील कार्यक्रमों को देखकर प्रौढ़ के लोग भी स्खलित हैं, उसे देखकर लगाता है कि देह-प्रदर्शन और सौंदर्य की भूख ने नारी जाति से मातृत्व का वह त्याग ही छीन लिया है, जिस मातृत्व के बल पर समाज में एक आशा जगी रहती थी कि माता के स्नेहसिक्त हाथों से पली पीढ़ी समाज, देश और मानवता की धरोहर सिद्ध होगी।"<sup>42</sup>

'पेड़ न्यूज सम्बन्धी मीडिया की समस्या आजकल बढ़ती जा रही है। इस पर चिन्ता व्यक्त करते हुए प्रख्यात पत्रकार प्रभाष जोशी कहते हैं-"यह देश का कैसा दुर्भाग्य है कि आजकल पैसा लेकर खबर लिखी और दिखाई जा रही है। ऐसे में पत्रकारिता का बचना मुश्किल है। अगर नीर-क्षीर विवेक से पत्रकारिता नहीं करेंगे तो हम अपनी पत्रकारिता की परम्परा



अब इसे सिर्फ प्रिन्ट मीडिया या इलेक्ट्रॉनिक मीडिया के दो खानों में तक्सीम नहीं किया जाता। फिल्म, रेडियो, टेलिविजन के बाद इंटरनेट, ब्लॉग, ट्विटर, फेसबुक, यहाँ तक कि टेलिफोन और मोबाइल जैसे खालिस निजी संचार यंत्र भी मीडिया के हाथ-पाँव बन गए हैं। इस पसमंजर में दुनिया की सभी जबानों के लिए ये मुआमला साफ और वाजेह हो गया है कि इन्हें जिन्दा रहना और फलना-फूलना है तो मीडिया के सभी बाजुओं के साथ जुड़कर आगे बढ़ना होगा।<sup>22</sup>

कहा जाता है कि मीडिया, समाज का दर्पण है। दर्पण कभी झूठ नहीं बोलता, लेकिन कभी-कभी दर्पण का सच कड़वा होता है, तो हमें अच्छा नहीं लगता, इसलिए हम दर्पण को ही दोषी मानकर उसकी आलोचना करने लग जाते हैं। मीडिया के माध्यम से कम समय में बहुत लोगों व स्थानों तक सूचनाएँ पहुँचती हैं। यह जनसंचार माध्यमों की सबसे बड़ी उपादेयता है।<sup>23</sup> अतः आज फले की अपेक्षा मीडिया पर अधिक उत्तरदायित्व है। न्यायाधीश सरकारिया का मानना है कि प्रेस को स्वयं आगे आकर नैतिक बल के आधार पर जनता से सम्बन्ध स्थापित करने चाहिए ताकि दोनों में आपसी विश्वसनीयता प्रगाढ़ हो सके।<sup>24</sup>

हिन्दी भाषा में प्रचार-प्रसार, विकास एवं परिमार्जन में पत्र-पत्रिकाओं का महत्वपूर्ण योगदान रहा है। हिन्दी गद्य के अभ्युत्थान की प्रेरणा समाचार-पत्र से ही प्राप्त हुई और आधुनिक हिन्दी गद्य के साहित्यकारों ने, जो समाचार पत्रों के सम्पादक थे, अपने कृतित्व को समाचार-पत्रों के माध्यम से प्रस्तुत किया तथा अन्य गद्यकारों को भी प्रभावित किया।<sup>25</sup> सूचना प्रौद्योगिकी में कम्प्यूटर का स्थान प्रमुख है। अब स्थिति यह हो गई है कि हिन्दी में पेजर आ गए हैं। हिन्दी में इंटरनेट भी उपलब्ध हो गया है। ई-मेल और सर्व संभव है। हिन्दी में अनेक पोर्टल प्रारम्भ हो गए हैं। हिन्दी में वेबसाईट व फेसबुक की शुरुआत हो चुकी है। हिन्दी में ई-बुक तथा ई-समाचार-पत्र व पत्रिकाएँ भी उपलब्ध हैं।<sup>26</sup>

सूचना प्रौद्योगिकी के कारण हिन्दी भाषा तथा साहित्य का वृहत् प्रचार-प्रसार हुआ है। इंटरनेट से 'वैश्विक ग्राम' की परिकल्पना साकार होने लगी है। डॉ. सुधीर सोनी "इलेक्ट्रॉनिक संचार माध्यम" पुस्तक में लिखते हैं— "इंटरनेट ने आज ज्ञान के प्रत्येक क्षेत्र में कम्प्यूटर स्क्रीन के रूप में अभिनव दृश्य माध्यम प्रस्तुत किया है। प्रत्यक्ष प्रदर्शन के इस प्रारूप ने जीवन अभिनव पक्षों को साकार किया है।<sup>27</sup> निस्संदेह इंटरनेट मीडिया ने विश्व में अपना प्रभुत्व स्थापित कर लिया है। प्रो. रमेश जैन के शब्दों में - "इंटरनेट मीडिया की पहुँच प्रिन्ट मीडिया से कहीं अधिक है। इसका उत्पाद लागत प्रिन्ट मीडिया से अपेक्षतया कम है।"<sup>28</sup> लन्दन में किये गए एक सर्वे से यह साफ होता है कि टेलीविजन और रेडियो के बाद इंटरनेट मनोरंजन और समाचारों के लिए सबसे अधिक लोकप्रिय माध्यम है।<sup>29</sup> आधुनिक तकनीक ने सही रूप में हमें 'ग्लोबलविलेज' बना दिया है। इसने संसार के तौर-तरीके बदल दिये हैं। सेटलाइट टेलीविजन पुरानी बात हो गई है। डिजिटल तकनीकी पत्रकार और दर्शक के बीच की दूर और कम कर देगी। मोबाइल टेलीविजन, इस्टेंट वीडिया को उपभोग की वस्तु बना देंगे। नई ऑनलाइन तकनीक अब वीडियो ऑन डिमांड का प्रस्ताव दे रही है।<sup>30</sup>

गाँवों में भ्रूण हत्या, नारी उत्पीड़न, अशिक्षा और अधिकारों के प्रति अज्ञानता आदि बहुत से मुद्दे हैं, जिन्हें लेकर इलेक्ट्रॉनिक मीडिया बड़ी प्रभावी भूमिका निभा सकता है। लेकिन टी.आर.पी. के लोभ में सभी चैनल वही कार्यक्रम प्रस्तुत करते हैं जिनके चलते खुद को नंबर एक चैनल सिद्ध किया जा सके। वस्तुतः सभी सरोकारों पर बाजार हावी हो चला है। लोकतन्त्र में मीडिया तब तक प्रभावशाली भूमिका नहीं निभा सकता जब तक वह ग्रामीण भारत के लोगों की समस्याओं को अभिव्यक्ति नहीं देता। जाने-माने टीवी पत्रकार व एंकर श्री पुण्य प्रसूत वाजपेयी का मानना है कि "मीडिया को जनसमस्याओं को प्राथमिकता देना चाहिए, न कि मनोरंजन को। मनोरंजन के कई अन्य माध्यम मौजूद हैं। सिवाय मीडिया के जनसमस्याओं को उभारने, उन्हें पटल पर लाने का अन्य कोई दूसरा तरीका नहीं है।"

साहित्य और मीडिया एक गाड़ी के दो पहियों की भाँति साथ-साथ कदम बढ़ाकर जनजागृति फैला सकते हैं। मीडिया का फर्ज है कि वह समाज को सभ्य बनाने में मदद करे। जहाँ जरूरत हो वहाँ उसे टोके। व्यक्ति को समूह के बाहर भी गरिमा प्रदान करे।<sup>31</sup> पत्रकार सजग साहित्यकार की भाँति अपनी उच्छर्जा से समाज को उन्नति प्रदान करता है। विदेशी और देशी इलेक्ट्रॉनिक मीडिया ने कुछ सालों में ही हमारी सांस्कृतिक परम्पराओं को जितना नुकसान फुँचाया, उतना किसी और ने नहीं फुँचाया।..... हमारे यहाँ भी बाजारवाद के खतरों की घण्टियाँ सुनाई देने लगी हैं। बाजारू संस्कृति के चुगलों पर पलने वाले साहित्यकारों ने साहित्य को अपूरणीय क्षति पहुँचाई है।<sup>32</sup> मीडिया और साहित्य की तुलना करते हुए श्री सुधीर पचौरी मानते हैं कि मीडिया साहित्यकारों के लिए नहीं होता, वह आम जनता के लिए होता है। साहित्यकारों के लिखे हुए को कम लोग पढ़ते हैं, जबकि मीडिया में छपता है या सुनाई देता है, उसे लाखों पढ़ते और समझते हैं।

विगत 150 वर्षों में लघु पत्रिकाओं और साहित्यिक पत्रिकाओं ने समाज को भी चेतना सम्पन्न बनाया है। वर्तमान में हिन्दी पत्र-पत्रिकाएँ दिन दूनी रात चौगुनी प्रगति पर हैं। एक सर्वे के मुताबिक भारत में 4,477 अंग्रेजी पत्र-पत्रिकाएँ हैं, जिनमें 209 दैनिक हैं। इनकी तुलना में हिन्दी में 9,695 पत्र-पत्रिकाएँ हैं, जिनमें 1,182 दैनिक हैं, जिनमें पत्र-पत्रिकाओं को विज्ञापनों का 57 प्रतिशत भाग मिलता है। जबकि हिन्दी पत्र-पत्रिकाओं को केवल 20 प्रतिशत और अन्य भारतीय भाषाओं को कुल मिलाकर 23 प्रतिशत ही प्राप्त होता है। इस प्रकार भारी आर्थिक प्रोत्साहन मिलने पर भी अंग्रेजी पत्र-पत्रिकाएँ अधिक



प्रस्तुत करें। साहित्य की सामाजिकता पर प्रकाश डालती हुई डॉ. रेणु वर्मा कहती हैं—“आज के युग गतिशीलता और परिवर्तनशीलता में संघर्ष के प्रतिमान अत्यन्त सूक्ष्म हो गये हैं और साहित्य के संस्कार विशृंखलित होकर खण्ड-खण्ड सामाजिकता को संगठित करने के लिए प्रयत्नरत हैं।<sup>12</sup> इस प्रकार ‘साहित्य का समाजशास्त्रीय चिंतन’ पर विचार व्यक्त करती हुई प्रो. निर्मला जैन लिखती हैं—“समाजशास्त्र की तरह, साहित्य का मुख्य सरोकार होता है; मनुष्य का सामाजिक जगत, उस जगत के प्रति उसकी अनुकूलता और उसे बदलने की इच्छा। उपन्यास औद्योगिक समाज की प्रमुख साहित्यिक विधा है। अतः उसमें परिवार, राजनीति तथा शासन के साथ मनुष्य के सम्बन्धों के सामाजिक जगत के पुनः सृजन का ईमानदार प्रयास दिखाई पड़ता है।<sup>13</sup>

नई सदी-इक्कीसवीं सदी का आगमन हो चुका है और इसका पहला दशक बीत चुका है। भूमण्डलीकरण (ग्लोबलाइजेशन) का युग आ चुका है। ‘ग्लोबलाइजेशन’ के कारण ग्लोब से गाँव की परम्परागत संस्कृति लुप्त हो रही है। उपभोक्तावादी अपसंस्कृति फैल रही है। वर्तमान समय चुनौतिपूर्ण है। इसकी ओर संकेत करते हुए वरिष्ठ कवि एवं समालोचक डॉ. कौशलनाथ उपाध्याय का कहना है—“वस्तुतः जिस समय में हम जी रहे हैं, वह समय संवेदनशील रचनाकार और आम आदमी दोनों के लिये कठिन एवं चुनौतिपूर्ण है। नयी सदी में प्रवेश करते के साथ ही हम इस कठिनाई की ओर गम्भीरतापूर्वक देखने लगे हैं और चुनौतियों की व्याख्या करते हुए उनसे लड़ने के औजारों के विषय में भी सोचने लगे हैं।<sup>14</sup> समकालीन कविता के परिदृश्य को देखकर परमानन्द श्रीवास्तव मानते हैं कि निर्व्यक्तिक ठण्डेपन और व्यक्तिगत मानवीय ताप में रची बसी दोनों ही रूपों में कविता अपने समय के प्रश्नों और चुनौतियों का सामना कर सकती है।<sup>15</sup> ‘कृति ओर’ तथा ‘प्रतिश्रुति’ साहित्यिक पत्रिकाओं के विद्वान् सम्पादक डॉ. रमाकांत शर्मा वर्तमान चुनौतिपूर्ण समय में सांस्कृतिक हमलों से सतर्क करते हुए लिखते हैं—“आज भूमण्डल में चेतना की लहर के बावजूद साम्राज्यवादी ताकतें खामोश होकर नहीं बैठी हैं बल्कि चालाकीपूर्ण ढंग से अपनी चालें बदलने में कामयाब हुई हैं। इन ताकतों ने सैनिक हमलों के स्थान पर अपनी पूँजी और मीडिया के बल पर सांस्कृतिक हमले शुरू कर दिये हैं। ये हमले फौजी हमलों की बजाय ज्यादा घातक और दूर की मार करने वाले हैं।<sup>16</sup>

जिस तरह साहित्य को समाज का दर्पण माना गया है, उसी तरह मीडिया को ‘विश्व का दर्पण’ माना जाता है। मीडिया आरम्भ में अखबार के रूप में अवतरित हुआ। फिर रेडियो और टेलीविजन ने सशक्त और प्रभावी माध्यम के रूप में मीडिया में प्रवेश किया। अब कम्प्यूटर, इन्टरनेट, मोबाइल जैसे नवीनतम साधन मीडिया को लोकप्रिय बना रहे हैं। आज मीडिया के प्रभाव को देखकर उसे ‘लोकतंत्र का चौथा स्तम्भ’ कहा जाने लगा है। सार्थक सामाजिक बदलाव लाने में मीडिया की भूमिका महत्वपूर्ण है। मीडिया को आम जनता का विश्वविद्यालय कहें तो अतिशयोक्ति नहीं है।

प्रसिद्ध साहित्यकार एवं मीडिया विशेषज्ञ डॉ. कृष्ण कुमार रतू का कहना है—“फिल्मों, टेलीविजन और इंटरनेट द्वारा इन दिनों का मीडिया परिदृश्य आपकी दिनचर्या को सीधे प्रभावित तो कर ही रहा है, इसके साथ वो आपकी भाषा, साहित्य, संस्कृति, व्यवहार, लिबास से लेकर आपके दिलो-दिमाग पर एक नयी क्रान्ति का प्रभाव छोड़ रहा है। नतीजा आपके सामने है। आज समाज तथा विश्व हर क्षण एक नये बदलाव की प्रक्रिया से गुजरते हुए दिखायी देते हैं।<sup>17</sup> आज की दुनिया में संचार माध्यमों या मीडिया की भूमिका की चर्चा करती हुई डॉ. संध्या गर्ग (दिल्ली विश्वविद्यालय, दिल्ली) कहती हैं—“भूमण्डलीकरण की अवधारणा एक ऐसी सभ्यता को जन्म देने के लिए प्रयासरत है, जिसके मूल में पश्चिम से उपजे प्रतिमान हैं। इस सभ्यता के विस्तार में सांस्कृतिक कारणों से अधिक भूमण्डली बाजार का महत्व है और इस बाजार को बढ़ाने की मुख्य भूमिका का निर्वाह करने की जिम्मेदारी मीडिया के कन्धों पर डाली गई है।<sup>18</sup> जनसंचार क्रान्ति का उल्लेख करते हुए वरिष्ठ साहित्यकार डॉ. रामप्रसाद दाधीच लिखते हैं—“युवा पीढ़ी को रचनात्मक एवं स्वस्थ दिशा देने वाला देश में कोई नेतृत्व नहीं है। पश्चिम की ओर अन्धी दौड़ ने सम्पूर्ण देश को दिशाभ्रमित किया है। संचार-क्रान्ति, प्रौद्योगिकी, औद्योगीकरण और किसी भी प्रकार अर्थ-संग्रह और सत्ता हथियाने के अभिक्रम देश में आज अनियंत्रित चल रहे हैं। नारी सशक्त हो रही है- यह बहुत ही प्रशंसनीय है, किन्तु ‘मुक्त नारी’ का नारीवाद आन्दोलन देश में जोर पकड़ रहा है। मीडिया को सर्वशक्तिमान कहें या सर्वग्रासी कहें - भूमिका पूरा जोर पर है।<sup>19</sup> आज जनतंत्र को बचाना व बढ़ाना स्वयं मीडिया के अपने अस्तित्व के लिए भी आवश्यक है। मीडिया की यात्रा मिशन से प्रोफेशन और प्रोफेशन से कमर्शियलाइजेशन के चरण में पहुँच गयी है। फिर भी आज के मीडिया की सबसे बड़ी चुनौती और कसौटी यह है कि वह राज्य और समाज को जनतात्रिक बनाने की अपनी भूमिका अदा करता है या नहीं।<sup>20</sup> सूर्यनगरी जोधपुर के वरिष्ठ कवि नवल जोशी भी संवेदनशील होकर पद्यमय उद्गार प्रकट करते हुए कहते हैं :

जुर्म सूँघता मीडिया, सड़कें पीती खून  
चस्पा करती वरिद्याँ, चेहरों पर कानून।<sup>21</sup>

20वीं सदी विज्ञान और टेक्नोलॉजी के लिए समर्पित थी तो 21वीं सदी मीडिया के लिए समर्पित है। इस सदी में मीडिया सबसे बड़ी ताकत के रूप में उभरा है। ‘शेष’ पत्रिका में प्रकाशित यह अशेष कथन उल्लेखनीय है—“हालिया बरसों में मीडिया सबसे बड़ी आलमी ताकत बनकर उभरा है और इसकी शक्ति भी न सिर्फ तब्दील हुई है, बल्कि इसका दायरा भी फैला है।



गर्भ नहीं कर सकेंगे।<sup>43</sup>  
साहित्य और मीडिया समाज को उन्नत बना सकते हैं। वर्तमान में अनेक चुनौतियाँ हैं, जिनका सामना किया जा सकता है। प्रसिद्ध साहित्यकार तथा मीडिया विशेषज्ञ डॉ. कृष्ण कुमार रतू के शब्दों में निष्कर्षतः कहा जा सकता है-“नयी सदी की इस पल-प्रतिपल बदल रही दुनिया में श्रव्य-दृश्य एवं आधुनिक संचार माध्यम एक शक्तिशाली भूमिका तथा मानवीय सरोकारों की संवेदना का सम्प्रेषण हाशिये के अन्दर तथा बाहर पड़े आदमी के लिए करेगा।”<sup>44</sup>

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## Velocity profiles of pulsatile unsteady flow of blood through stenosed artery filled with porous medium under the influence of magnetic field and slip velocity

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**Abstract:** The present paper considers the pulsatile flow of blood under the effect of transverse static magnetic field and slip velocity. The pulsatile flow is analyzed by considering a periodic pressure gradient (a function of time). Also, viscosity of blood is of hematocrit dependent and governed by Einstein equation. The Navier-stokes equation is made dimensionless using non-dimensional parameters and is solved by Frobenius method. The effect of Hartmann number (H), Hematocrit concentration(Hm), Womersley number( $\alpha$ ) and Darcy number(Da) on the velocity profiles have been calculated and shown by graphs.

**Keywords:** Newtonian fluid, Stenosed artery, Slip velocity, Magnetic field, Porous medium.

### Introduction

Many researchers Kolin(1936), McDonald(1960), Fung(1984), Mazumdar(1992), Halder and Ghosh(1994), Layek and Mukhopadhyay (2008), Sharma and Bansal(2012, 2014) considered the mathematical model of blood flow through stenosed artery subject to various physiological conditions. Steinman et al. (2000) characterized the hemodynamics of moderately and severely stenosed carotid bifurcation. They concluded that the presence of a severe stenosis serves to increase the size and extent of the recirculation zones and introduces turbulence in the post-stenotic region. J. Anand Rao *et al.* (2004) obtained the numerical solution of unsteady blood flow through an indented tube with atherosclerosis and observed that volumetric flow rate decrease with increase in maximum hematocrit, increase in maximum hematocrit increases the pressure gradient in stenotic region and also investigated that increase in hematocrit and maximum height of the stenosis decrease the shear stress in the stenotic region. Sanyalet *et al.* (2007) developed a mathematical model for studying the characteristic of blood flow in a rigid inclined circular tube with periodic body acceleration under the influence of a uniform magnetic field and concludes that velocity increases with acceleration due to gravity, inclination and womersley parameter and decreases with magnetic number. Biswas *et al.* (2010) consider a two-layered blood flow through stenosed artery under the action of body acceleration and slip at wall. They noticed that there is a highly influence of wall slip and body acceleration on velocity, flow rate and effective viscosity. They found that with the increase of wall slip and body acceleration,

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there is an increase in velocity and flow rate, but effective viscosity decreases with wall slip. Prakash and Makinde (2011) studied the effect of magnetic field on the blood flow through a stenosed artery with radiative heat transfer. The blood behaves like a Newtonian fluid and viscosity is taken in the form of hematocrit dependent. Analytic solution for the blood velocity, temperature, volumetric flow rate, wall shear stress and wall heat transfer rate are found. They concluded that arterial wall heat transfer rate and skin friction increases with the increases of stenosis height and radiation absorption. Also, they observed that blood temperature is maximum along the arterial centre line and minimum at wall. Sharma et al. (2012) considered the blood flow in a stenosed artery under the influence of transverse magnetic field through porous medium and they showed that wall shear stress changes its sign twice in the region of stenosis nearby entry and exit of the stenosis. The occurrence of these variation suggests that there will be two region of circulation for the value of Hartmann number  $H > 2$ . Sharma et al. (2014) dealt with the pulsatile blood flow through an inclined catheterized stenosed artery with slip on the wall in the presence of an external magnetic field by considering the incompressible Newtonian fluid model. Analytic expression for the velocity, volumetric flow rate, wall shear stress, wall shear stress gradient and impedance have been derived and numerical results are presented graphically for different values of physical parameters. Mwanthi et al. (2017) dealt the unsteady blood flow through an inclined circular tube under MHD effects. Here, blood is taken as incompressible, viscous and Newtonian with varying pressure gradient with time. The problem was solved by approximation method. They found that with the increase of Hartmann number leads to decrease the axial velocity of the blood.

In the present paper an attempt has been made to deal with the blood flow through an artery filled with porous medium subject to a slip velocity at arterial wall and effects of various hemodynamic parameters on velocity profiles.

### **Formulation of Problem**

The present study is to dealt with the flow of blood in narrow stenosed artery that is suffer with some deposition in the flow region which is taken as porous medium. A static magnetic field is present surrounding the patient and slip velocity at the arterial wall is also taken. The viscosity of blood is dependent on Hematocrit concentration and is given by Einstein equation

$$\mu = \mu_0 [1 + \beta h] \tag{1}$$

where,

$\mu_0$  → coefficient of viscosity of plasma

$\beta$  → constant

And

$h(r)$  → hematocrit concentration

which vary along the radial direction govern by the equation

$$h(r) = H_m \left[ 1 - \left( \frac{r}{R_0} \right)^n \right] \tag{2}$$

Here,  $H_m$  → maximum hematocrit concentration at the axis of tube.

### Geometry of the Model

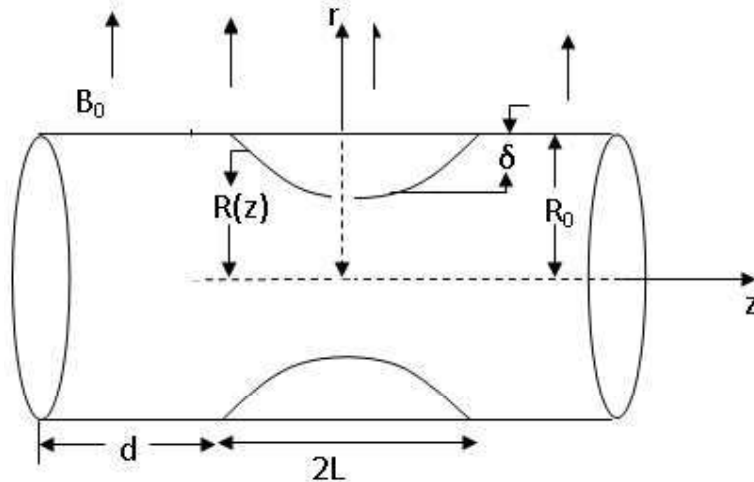


Figure 1

The blood vessel geometry is determined by the radius  $R_0$  of the inlet and outlet unstricted segment, whereas the radius of the smooth axisymmetric stenosed segment is given by

$$R(z) = \begin{cases} R_0 - \frac{\delta}{2} \left(1 + \cos \frac{\pi z}{L}\right) & -L \leq z < L \\ R_0 & \text{otherwise} \end{cases} \quad (3)$$

where

$2L \rightarrow$  length of stenosis

$\delta \rightarrow$  maximum thickness of the stenosis

Here, we consider unsteady, incompressible, viscous, axially symmetric and one dimensional fully developed blood flow through a circular tube in the presence of static magnetic field and slip velocity  $u_s$  at arterial wall. The governing equations are derived using cylindrical coordinate system  $(r, \theta, z)$ , the axis of the tube is along with the  $z$ -axis and  $z=0$  (origin) corresponds to the peak point of the stenosis. The diameter of the tube is assumed to be greater than 1mm so Fahraeus –Lindqvist effect is not significant. The tube is filled with blood of electrical conductivity  $\sigma$ , density  $\rho$  and the permeability of porous material is constant  $K$ .

The momentum equation of blood as incompressible and Newtonian fluid through a porous medium with slip condition at arterial wall is given by

$$\rho \frac{\partial u}{\partial t} = -\frac{\partial p}{\partial z} + \frac{1}{r} \frac{\partial}{\partial r} \left( \mu r \frac{\partial u}{\partial r} \right) - \sigma B_0^2 u - \frac{\mu}{K} u \quad (4)$$

The boundary conditions are

$$\begin{aligned} \frac{du}{dr} &= 0 & r &= 0 \\ u &= u_s & r &= R(z) \end{aligned} \quad (5)$$

Where,  $-\sigma B_0^2 u$  is the magnetohydrodynamic force which arises due to the interaction of electrical conductivity of blood and the applied magnetic field.



Taking length and time scaling parameter, the governing equation reduced to

$$\frac{\rho R_0^2}{t_0 \mu_0} \frac{\partial u}{\partial t} = \frac{-R_0^2}{\mu_0} \frac{\partial p}{\partial z} + \frac{1}{y} \frac{\partial}{\partial y} \left[ (a - ky^n) y \frac{\partial u}{\partial y} \right] - \frac{R_0^2 \sigma B_0^2 u}{\mu_0} - \frac{(a - ky^n)}{Da^2} u \quad (6)$$

Where,  $y = \frac{r}{R_0}$ ,  $t = \frac{T}{t_0}$ ,  $\beta H_m = k$ ,  $a = 1 + k$ ,  $t = \frac{T}{t_0}$

The blood is acted upon by pressure gradient  $\frac{\partial p}{\partial z}$  which varies with time is given by

$$-\frac{R_0^2}{\mu_0} \frac{\partial p}{\partial z} = c e^{i\omega t} \quad (7)$$

where,

$\omega = 2\pi f$ ,  $f \rightarrow$  heart pulse frequency and  $c$  is the amplitude of the pulsatile flow.

Also, Taking  $u(y, t) = U(y) e^{i\omega t}$  (8)

And introducing the following non-dimensional parameters

$$\frac{R_0^2 \sigma B_0^2}{\mu_0} = H^2, \quad \frac{K}{R_0^2} = Da^2, \quad \alpha^2 = \frac{\rho R_0^2 \omega}{t_0 \mu_0} \quad (9)$$

Where,  $H$  the Hartmann number,  $Da$  the Darcy number and  $\alpha$  the Womersley number, the governing equation can be written as

$$\frac{1}{y} \frac{d}{dy} \left[ (a - ky^n) y \frac{dU}{dy} \right] - (\alpha^2 i + H^2 + \frac{a}{Da^2}) U + \frac{ky^n}{Da^2} U = -c \quad (10)$$

The corresponding boundary conditions (10) and (11) are transformed to

$$\begin{aligned} \frac{dU}{dy} &= 0 & y &= 0 \\ U &= u_s & y &= \frac{R(z)}{R_0} \end{aligned} \quad (11)$$

**Method of Solution**

**Calculation for Velocity Profiles**

We have used Frobenius method for the solution of differential equation (10). For implementing, it is required that  $U$  is bounded at  $y = 0$ . The only admissible solution satisfying the boundary condition (11) is

$$U = D \sum_{m=0}^{\infty} A_m y^m - \frac{c}{4a} \sum_{m=0}^{\infty} \lambda_m y^{m+2} \quad (12)$$

Here, the second term of the right hand side is the solution corresponding to non-homogenous part of the equation (10) and  $A_m$  and  $\lambda_m$  are the series constant,  $D$  is an arbitrary constant to be determined by the boundary condition (11).

Firstly, we find the solution of homogenous part of (10) with

$$U = D \sum_{m=0}^{\infty} A_m y^m \quad (13)$$

$$\frac{dU}{dy} = D \sum_{m=1}^{\infty} A_m m y^{m-1} \quad (14)$$

$$\frac{d^2U}{dy^2} = D \sum_{m=2}^{\infty} A_m m(m+1)y^{m-2} \tag{15}$$

Combining these with the homogenous part of the equation (10) we get

$$\begin{aligned} [ay - ky^{n+1}] \sum_{m=2}^{\infty} A_m m(m+1)y^{m-2} + [(a - ky^n - kny^n)] \sum_{m=1}^{\infty} A_m my^{m-1} \\ - \left[ (\alpha^2 i + H^2 + \frac{a}{Da^2})y + \frac{ky^{n+1}}{Da^2} \right] \sum_{m=0}^{\infty} A_m y^m = 0 \end{aligned} \tag{16}$$

Comparing the coefficient of  $y^m$ , we have

$$A_{m+1} = \frac{(\alpha^2 i + H^2 + \frac{a}{Da^2})A_{m-1} + k(m+1)(m-n+1)A_{m-n+1} - \frac{k}{Da^2} A_{m-n-1}}{a(m+1)^2} \tag{17}$$

For the solution of non-homogenous part, let

$$U = -\frac{c}{4a} \sum_{m=0}^{\infty} \lambda_m y^{m+2} \tag{18}$$

$$\frac{dU}{dy} = -\frac{c}{4a} \sum_{m=1}^{\infty} \lambda_m (m+2)y^{m+1} \tag{19}$$

$$\frac{d^2U}{dy^2} = -\frac{c}{4a} \sum_{m=2}^{\infty} \lambda_m (m+2)(m+1)y^m \tag{20}$$

The equation (10) gives

$$\begin{aligned} [(a - ky^n) y] \sum_{m=2}^{\infty} \lambda_m (m+2)(m+1)y^m + [a - ky^n - kny^n] \sum_{m=1}^{\infty} \lambda_m (m+2)my^{m+1} \\ - (\alpha^2 i + H^2 + \frac{a}{Da^2})y \sum_{m=0}^{\infty} \lambda_m y^{m+2} + \frac{ky^{n+1}}{Da^2} \sum_{m=2}^{\infty} \lambda_m y^{m+2} = 4ay \end{aligned}$$

Comparing the coefficient of  $y^{m+2}$ , we have

$$\lambda_{m+1} = \frac{(\alpha^2 i + H^2 + \frac{a}{Da^2})\lambda_{m-1} + k(m+3)(m-n+3)\lambda_{m-n+1} - \frac{k}{Da^2} \lambda_{m-n-1}}{a(m+3)^2} \tag{21}$$

with  $A_0 = \lambda_0 = 1$  and  $A_{-m} = \lambda_{-m} = 0$

The constant D involved in the solution (13) is obtained with the help of boundary

condition (11) i.e.  $U = u_s$  at  $y = \frac{R(z)}{R_0}$

We have,  $u_s = D \sum_{m=0}^{\infty} A_m \left(\frac{R}{R_0}\right)^m - \frac{c}{4a} \sum_{m=0}^{\infty} \lambda_m \left(\frac{R}{R_0}\right)^{m+2}$

and D is given by

$$D = \frac{\frac{c}{4a} \sum_{m=0}^{\infty} \lambda_m \left(\frac{R(z)}{R_0}\right)^{m+2} + u_s}{\sum_{m=0}^{\infty} A_m \left(\frac{R(z)}{R_0}\right)^m} \quad (22)$$

then,

$$U(y) = \frac{\left(\frac{c}{4a} \sum_{m=0}^{\infty} \lambda_m \left(\frac{R(z)}{R_0}\right)^{m+2} + u_s\right) \sum_{m=0}^{\infty} A_m y^m - \frac{c}{4a} \sum_{m=0}^{\infty} A_m \left(\frac{R(z)}{R_0}\right)^m \sum_{m=0}^{\infty} \lambda_m y^{m+2}}{\sum_{m=0}^{\infty} A_m \left(\frac{R(z)}{R_0}\right)^m} \quad (23)$$

and  $u(y, t) = U(y) e^{i\omega t}$

$$u(y, t) = \left[ \frac{\left(\frac{c}{4a} \sum_{m=0}^{\infty} \lambda_m \left(\frac{R(z)}{R_0}\right)^{m+2} + u_s\right) \sum_{m=0}^{\infty} A_m y^m - \frac{c}{4a} \sum_{m=0}^{\infty} A_m \left(\frac{R(z)}{R_0}\right)^m \sum_{m=0}^{\infty} \lambda_m y^{m+2}}{\sum_{m=0}^{\infty} A_m \left(\frac{R(z)}{R_0}\right)^m} \right] e^{i\omega t} \quad (24)$$

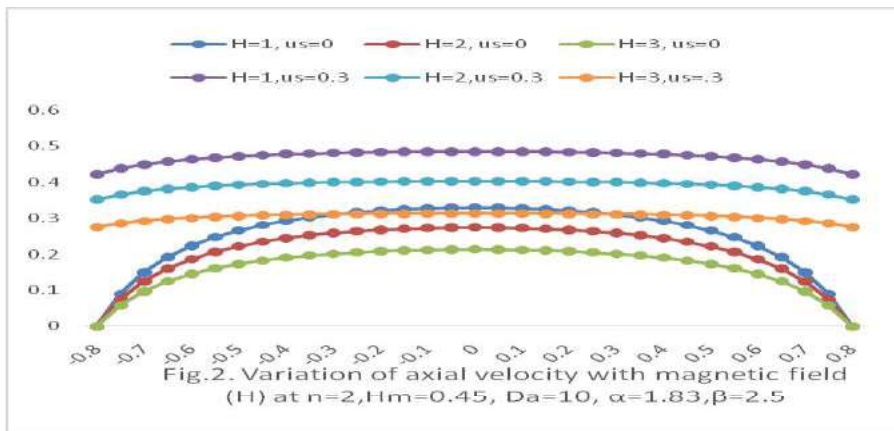
In particular, in the absence of the hematocrit, the average velocity  $u_0$  is given by

$$u_0 = \frac{c_0 e^{i\omega t}}{\left(\alpha^2 i + \frac{1}{Da^2}\right)} \left[ 1 - \frac{I_0\left(\sqrt{\alpha^2 i + \frac{1}{Da^2}} y\right)}{I_0\left(\sqrt{\alpha^2 i + \frac{1}{Da^2}}\right)} \right] \quad (25)$$

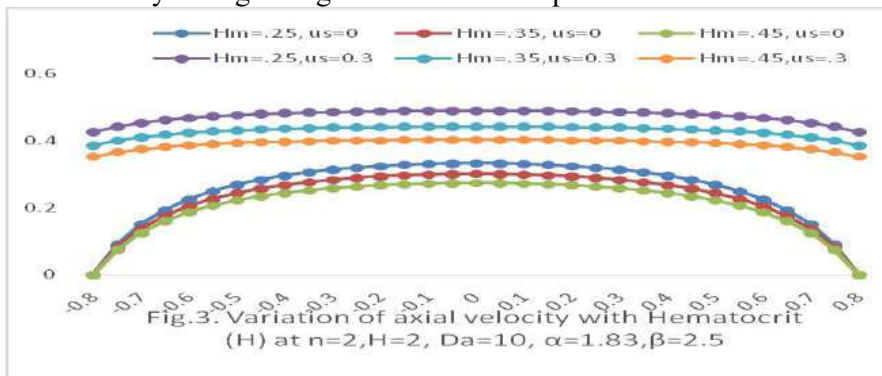
The dimensionless form of  $u(y,t)$  with respect to  $u_0$  is now obtained from equations (24) and (25) and given by

$$\frac{u}{u_0} = \left( \frac{\alpha^2 i + \frac{1}{Da^2}}{c_0} \right) \frac{\left(\frac{c}{4a} \sum_{m=0}^{\infty} \lambda_m \left(\frac{R(z)}{R_0}\right)^{m+2} + u_s\right) \sum_{m=0}^{\infty} A_m y^m - \frac{c}{4a} \sum_{m=0}^{\infty} A_m \left(\frac{R}{R_0}\right)^m \sum_{m=0}^{\infty} \lambda_m y^{m+2}}{\sum_{m=0}^{\infty} A_m \left(\frac{R}{R_0}\right)^m \left[ 1 - \frac{I_0\left(\sqrt{\alpha^2 i + \frac{1}{Da^2}} y\right)}{I_0\left(\sqrt{\alpha^2 i + \frac{1}{Da^2}}\right)} \right]}$$

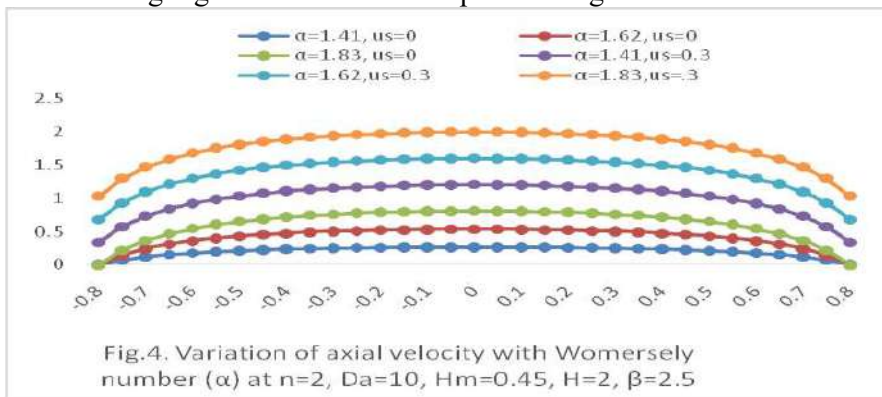
**Results and Discussion:** The expression of axial velocity is found and the obtained Data are plotted for different values of Hartmann number (H) , Darcy number (Da), Wormersley number ( $\alpha$ ) and Hematocrit concentration(Hm). The profiles of axial velocity versus radial co-ordinate for various physical parameters are shown in Figures [2-5].



In figure 2, it is observed that increase of Hartmann number (H) fluid speed decreases in both the cases, with slip or without slip at arterial wall, keeping all other parameters constant. The Slip velocity fairly increases the flow speed as compare to the no-slip at the wall of artery. It is good agreements with the previous research.

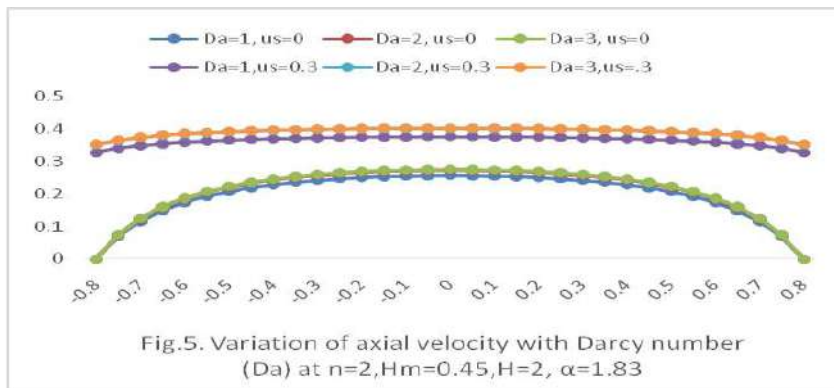


In figure 3, it is observed that the axial flow velocity slowed down with the increase of Hematocrit concentration for both cases of with slip or without slip at the arterial wall, it is possible that the velocity profile in centerline region for less Hematocrit concentration of blood having higher curvature as compared to higher Hematocrit concentration of blood.



In figure 4, it is observed that with the increase of Womersley number, there is an increase in the flow speed for both the cases that is flow speed is increased with increasing of oscillations in the flow.





In figure 5, it is observed that with the increase of porosity of the medium in the tube, there is an increase in the flow speed for both the cases, but there is amplification in the fluid speed for the slip velocity at the arterial wall.

### Conclusions

1. The fluid velocity reduces its value with the increase of magnetic field and Hematocrit concentration.
2. The fluid velocity increases its value with the increase of Womersely number and Darcy number

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## माखनलाल चतुर्वेदी के काव्य में अवसादपूर्ण जीवन का चित्रण

डॉ० अनिल कुमार  
स्नातकोत्तर हिन्दी विभाग  
वैश्य महाविद्यालय भिवानी।

पं० माखनलाल चतुर्वेदी जी ने अपने युग की उलझी संवेदनाओं, परिवर्तित जीवन-शैली को जिसमें आक्रोश, कुण्ठा, पलायन, विद्रोह, निराशा के भाव तीव्र गति से बढ़ रहे थे, को अपने काव्य में अभिव्यक्त किया है। इनके काव्य में सामाजिक-परिवर्तन का संघर्षपूर्ण यथार्थ चित्रण देखने को मिलता है। यूं तो सामाजिक परिवर्तन के सभी पक्ष माखनलाल चतुर्वेदी के काव्य में अभिव्यक्त हुए हैं यथा वैयक्तिक अभावों की स्वीकृति, ज्वलन्त यथार्थ का चित्रण, मानव की प्रतिष्ठा, सामाजिक निषेधों को तोड़ने का प्रयास, ईश्वरीय शक्ति में आस्था आदि किन्तु वैयक्तिक अभावों को प्रधान रूप में अभिव्यक्त किया गया है, माखनलाल चतुर्वेदी जी के काव्य में वैयक्तिक अभावों के अनेक सूक्ष्म चित्र मिलते हैं। उन्होंने व्यक्तिगत जीवन में यथार्थ को अपने काव्य में स्पष्ट अभिव्यक्ति प्रदान की है। 'अपना आप हिसाब लगाया' कविता के माध्यम से कवि ने यौवनकाल की स्थिति को व्यंजित किया है—

अपना आप हिसाब लगाया पाया महा दीन से दीन

डेसिमल पर दस शून्य जमाकर लिक्खे जहाँ तीन पर तीन !

इतना भी हूँ क्या? मेरा मन हो पाया निःशंक नहीं

पर मेरे इस महाद्वीप का इससे छोटा अंक नहीं !<sup>1</sup>

एक अन्य उदाहरण दृष्टव्य है —

छोड़ो भाई, जीवन मेरा रूठ न जाये छोड़ो तो,

तोड़ो, बाँधे नहीं, प्रतिष्ठा के ये बन्धन तोड़ो तो,

विस्मृत कर दो सखे, बावली आशा के घट पफोड़ो तो,

गौरवमयी उपेक्षा के सुर-साधे बंधन जोड़ो तो !<sup>2</sup>

संसारिक निष्ठुरता से कवि विवश हो उठता है और यह विवशता उनके गीतों के माध्यम से मुखरित हो उठती है—

विवश मैं, तो वीणा का तार ।  
न मुझमें रंग, न मुझमें रूप, न दीखे मेरा कहीं शरीर ।  
किन्तु मेरे प्राणों पर हाय, टूटते हो तुम आलमगीर ।

मधुरिये ! तू कितनी लाचार,  
अभागा मैं वीणा का तार ।  
विवश मैं तो वीणा का तार ।<sup>3</sup>

माखनलाल चतुर्वेदी के काव्य में वैयक्तिक दुःखानुभूति अधिक मात्रा में मिलती है, उनके हृदय की पीड़ा ही उनकी कविता बन गई है—

आज मैंने  
बीन खोई  
बीन—वादन का  
अमर स्वर—भार  
आज मैं तो  
खो चुका  
साँसों—उसाँसों,  
और अपना लाड़ला  
उर—ज्वार !  
आज जब तुम  
हो नहीं, इस—  
पफूस कुटिया में  
कि कसक समेत ।<sup>4</sup>

माखनलाल चतुर्वेदी जी के काव्य में वैयक्तिक दुःखात्मक अनुभूति प्रधान गीत अनूठी व्यापकता के साथ अभिव्यक्त हुए हैं। ऐसा लगता है मानो उनके हृदय की पीड़ा ही छंदों में साकार हो उठी है

भाई, छोड़ों नहीं, मुझे खुलकर रोने दो  
यह पत्थर का हृदय आँसुओं में धेने दो  
रहो प्रेम से तुम्हीं मौज से मंजु महल में,  
मुझे दुखों की इसी झोंपड़ी में सोने दो ।



कुछ भी मेरा हृदय न तुमसे कह पायेगा,  
किन्तु पफटेगात्रह पफटे बिना क्यों रह पायेगा,  
सिराक-सिराक सानंद आज होगी श्री-पूजा,  
बहे कुटिल यह सुख दुःख क्यों बह पायेगा ।  
वारुँ सौ-सौ शवाँस एक प्यारी उसाँस पर,  
हारुँ, अपने प्राण, दैव तेरे विलास पर,  
चलो, सखे तुम चलो तुम्हारा कार्य चलाओ,  
लगे दुखों की झड़ी आज अपने निराश पर !<sup>5</sup>

पत्नी की मृत्यु पर उनका हृदय चित्कार उठा --

हरि खोया है? नहीं, हृदय का धन खोया है,  
और, न जाने वही दुरात्मा मन खोया है  
किन्तु आज तक नहीं हाय इस तन को खोया,  
अरे बचा क्या शेष, पूर्ण जीवन खोया है ।  
पूजा के ये पुष्प-गिरे जाते हैं नीचे,  
यह आँसू का झोत आज किसके पद सींचे,  
दिखलाती, क्षण मात्रा न आती, प्यारी प्रतिमा  
यह दुखिया किस भाँति उसे भूतल पर खीचें !<sup>6</sup>

माखनलाल चतुर्वेदी की वैयक्तिकता निराशा, वेदना, विषाद,  
अवसाद, स्मृति आदि सभी मानवीय संवेदनाओं के वैयक्तिक धरातल पर मुखरित हुई हैं ।  
जिसमें कवि रो गाकर अपने हृदय की पीड़ा को अभिव्यक्ति देता है--

बोल तो किसके लिए मैं

गीत लिखूँ, बोल बोलूँ

प्राणों की मसोस, गीतों की कड़ियाँ बन-बन रह जाती है,

आँखों की वूँदें वूँदों पर, चढ़-चढ़ उमड़-घुमड़ आती है !

रे निन्दुर किस के लिए मैं आँसुओं में प्यार घोलूँ?

बोल तो किसके लिए मैं गीत लिखूँ, बोल बोलूँ?<sup>7</sup>

निष्कर्ष रूप में कह सकते हैं कि पं० माखनलाल चतुर्वेदी ने अपने व्यक्तिगत अभाव की तीव्र अनुभूति को प्रखर अभिव्यक्ति प्रदान की है। इस प्रकार की प्रत्यक्ष आत्माभिव्यक्ति, जिसके प्रति हिन्दी साहित्य में एक प्रकार का संकोच ही रहा है, आधुनिक काव्यधारा के इस महर्षि ने इस संकोच को त्यागकर साहस के साथ स्पष्ट आत्माभिव्यक्ति के लिए मार्ग प्रशस्त किया है।

### संदर्भ संकेत

1. सं० श्रीकान्त जोषी, माखनलाल चतुर्वेदी रचनावली, भाग-6 पृष्ठ-24
2. वही पृष्ठ-108
3. वही पृष्ठ-129
4. वही पृष्ठ-41
5. वही पृष्ठ-41
6. वही पृष्ठ-128
7. वही पृष्ठ-129





## **A Review on Self-Management - The Power of The People**

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### **Abstract**

Today, the word management has become very common in general language. Everybody is using frequently this as their pet word. Each one of us want everything managed in every field like education, health, facility, finance, human resource, hotel, tourism, production, sales, transportation, distribution, marketing etc. and many more. But here, I want to focus on the skill of self-management, something that I believe is the fundamental requirement for empowering the both, people and organizational success in the knowledge economy. There is ambiguity about the term, and in most discussions, *self-management* refers to a combination of behaviors that focus on how people manage themselves in their work and their life. Some authors define self-management through these six traits: self-control, transparency, adaptability, achievement, initiative, and optimism. Building self-management skills takes time and is a multi-year process. It requires time for people to find what works for them and to be given more autonomy and opportunity as they grow professionally. Our life is about goals. Rare person lives without an ultimate aim or a dream bird fluttering somewhere over a horizon. But reaching this goal implies performing thousands of petty tasks, everyday chores, meetings and actions. Planning these activities effectively is what self management is about. To survive in the world we have to manage our situation and to meet our objectives of life we have to plan, organize, direct, coordinate and control our self first and only then we can achieve objectives of our job or our business or even the organizational objectives. The present article throws a light on the aspect of self management, which is the need of today's highly competitive and stressed and so called time lacking environment.



## Introduction

Management is not just for managers, just as leadership is not just for leaders. We all manage, and we all lead; these are not actions reserved for only those people who happen to hold these “positions” in a company. I personally think of management and leadership as *callings*, and we all get these callings to manage and lead at different times, and to different degrees. Self management sounds like being your own boss, but it doesn’t mean setting up your own business. In fact it means taking responsibility for your own actions and doing things as well as you can. It shows you are able to organise yourself and offer your own ideas to any project. It’s about being the boss of YOU, not the boss of a team or company!

## Twelve Rules for Self-Management

1. Live by your values, whatever they are. You confuse people when you don’t, because they can’t predict how you’ll behave.
2. Speak up! No one can “hear” what you’re thinking without you be willing to stand up for it. Mind-reading is something most people can’t do.
3. Honor your own good word, and keep the promises you make. If not, people eventually stop believing most of what you say, and your words will no longer work for you.
4. When you ask for more responsibility, expect to be held fully accountable. This is what seizing ownership of something is all about; it’s usually an all or nothing kind of thing, and so you’ve got to treat it that way.
5. Don’t expect people to trust you if you aren’t willing to be trustworthy for them first and foremost. Trust is an outcome of fulfilled expectations.
6. Be more productive by creating good habits and rejecting bad ones. Good habits corral your energies into a momentum-building rhythm for you; bad habits sap your energies and drain you.
7. Have a good work ethic, for it seems to be getting rare today. Curious, for those “old-fashioned” values like dependability, timeliness, professionalism and diligence are prized

more than ever before. Be action-oriented. Seek to make things work. Be willing to do what it takes.

8. Be interesting. Read voraciously, and listen to learn, then teach and share everything you know. No one owes you their attention; you have to earn it and keep attracting it.
9. Be nice. Be courteous, polite and respectful. Be considerate. Manners still count for an awful lot in life, and thank goodness they do.
10. Be self-disciplined. That's what adults are supposed to "grow up" to be.
11. Don't be a victim or a martyr. You always have a choice, so don't shy from it: Choose and choose without regret. Look forward and be enthusiastic.
12. Keep healthy and take care of yourself. Exercise your mind, body and spirit so you can be someone people count on, and so you can live expansively and with abundance.

### Three Key Self Management Skills

Self management is about making a choice to do more than you need to, and it is a great skill to build for life and work. There are the three most important self management skills on which one should focus which are as under:-

- Initiative
- Organisation
- Accountability

**Initiative** means one is being able to work without always being told to do. One can show initiative by thinking and taking action as and when needed. It means using your head and having the drive to achieve. Initiative requires self belief and motivation which is needed to do the things without being reminded or asked.

Why is initiative important?





Employers often say they want staff who can respond to and deal well with problems. Highlighting to an employer that you can think for yourself or “show initiative” will be useful in many job applications and interviews. It’s a great life skill, too. Taking the initiative is what makes you phone a friend to clear the air after an argument you both regret, or decide you are going to take up volunteering, or do further education.

**Organisation** If you are organized in life and work it means you can plan your time and the things you have to do. You know very well that what the priority is. What to do and how to do.

Why are organisation skills important?

From managing your time to prioritizing tasks, and even having a tidy desk, being organised will help you improve your employability and also your life. An organised person will know what they need to do and when, where their pen is, and if it’s their turn to bring biscuits into the office. They make lists, have a calendar or diary, and are able to manage themselves in all areas of life and work.

As well as ensuring you don’t forget your lunch or turn up late to an important meeting, organisation will make you look more professional and help you get your job done more effectively. Employers really value strong organisational skills, as they know you will be efficient and do the work on time. Being organised also shows how much you care about your job. Arriving every day, being on time, and remembering everything you need is really important.

**Accountability** If you say to yourself that you are accountable, it means that you take ownership of the responsibilities that come your way. You take pride in your work and want to do it well to get the best results possible. You can be justly proud of the task’s success, and you accept responsibility if it goes wrong.

If a task you are responsible for doesn’t go well, you will make it your personal mission to look for ways to improve next time or find a better way of completing the task using your problem solving skills. This is still accountability. It’s not about the task being successful or not – it’s about your attitude to the task.



Why is accountability important?

Everyone loves to see you have a positive attitude and can be relied on to put the effort in when something needs to be done. If you're in a sports team, other people on your team know they can rely on you to give it your all. If you're working on a group project, going the extra mile to contribute – and doing it because you care, not just because you have to – means the project is more likely to go well and people will want to work with you in future.

At work, employers want to know that you will take the work they give you seriously and treat it as a chance to show you can be trusted with more important work in the future. Taking responsibility for yourself is a great way to get invited to work on really exciting projects as you build experience over time.

#### **Building self management skills at work will help you:**

- Turn up on time to important meetings and bring anything you might need (that counts for job interviews too!)
- Take pride in your work and get recognized as someone who really tries and cares
- Do your tasks better because you prepare in advance when you need to
- Seek out opportunities for work experience, training and more.

Good self management skills will give you more chances to move forward in your career, too. People can see you as someone who can handle responsibility and puts extra care into what they do, going above and beyond what's required. An attitude like this can help you get more opportunities, responsibility, training and promotions over time.

#### **How to build and improve self management skills**

Self management is about preparing for the future, owning your present and taking care in what you do – as well as learning how you could do better next time. Self management is a really important way to grow as a person, not just in the workplace. Babies are not responsible for anything they do. As we grow, we learn that it's important to take responsibility for yourself because there won't always be someone there to hold your hand with every step you take.



Here are some ways to build the three key elements of self management (initiative, organisation and accountability).

#### Ways to boost your initiative

- **Starts a project** – Having an idea and making the effort to follow it through shows great initiative.
- **Do a course in your spare time** – Choosing to develop your skills and knowledge shows employers how motivated and willing you are.
- **Volunteering** – Giving your time to a good cause makes you stand out and can help you to develop a range of skills. As an example, you could become a Youth Ambassador with Youth Employment UK.
- **Complete our Young Professional Training!** If you haven't done this yet it's totally free, and doing the training shows you are already taking the initiative to build your life skills.

#### Ways to develop your organization

- **Set yourself deadlines for projects** – Plan how you will achieve your goal. When do certain tasks need to be done and in what order?
- **Use a planner** – Use an online or paper tool that will help you manage your diary, tasks and important information.
- **Create a routine** – Set a morning routine to make sure you are ready for the day ahead.

#### Ways to develop accountability

- **Own the task you're given** – When you are given a task by anyone (e.g. a teacher, boss or parent/career) doesn't think of it as a task someone gave you. Say to yourself : “this is my task. The passion I put into this task reflects on me as a person, and I am ready to take pride in what I do.”



- **Go the extra mile to do things as well as you can** – If you have been assigned a task or activity and it is not going well, think about what extra steps you could take to make it better. Is there someone you could talk to? An extra action you could take? A new way you could look at the problem?

### **Contribution of Management in developing the Self Management Skills**

Management is very important for every person to achieve success in his career and overall life. It helps deliver a better performance and achieve goals in the stipulated time period, making one successful.

Have you ever thought why a particular businessman makes more profit than others? And why the others fail to achieve their goals in spite of being in supportive and favorable conditions? The answer lies somewhere in management skills. These skills help deliver a better performance and achieve goals in the stipulated time period, making one successful. You may be a businessman, artist, student, employee, or a trainee! If you are wondering what personal management skills are, then it is nothing but the way one manages his own life. According to Simon Oates, "It refers to the ability of oneself to exercise control over one's attitude, behavior, emotions, and motivation." It is very important to possess these skills, as today people are not judged only by their academic achievements, intelligence, and expertise, but also by how they handle and manage themselves and those around them.

### **Management Skills**

**Communication Skills-** It tops the list of management skills, be it personal or professional. As someone rightly said that the way we communicate with others and with ourselves ultimately determines the quality of our life. It is almost impossible to develop your management skills without communication skills, because if you cannot listen to your own inner voice, then how you would communicate with others? Hence, it is essential for you to develop good communication skills that can not only help you convey a message, but also help motivate, encourage, and inspire others and your own self.





**Self Development skills**-Personal management would be incomplete without self development skills. They say no one is perfect, but it does not mean that you should stop striving for perfection. The more you try to perfect yourself, the more you improve. You must always analyze and evaluate your performance, not only regarding your career, but also regarding personal life. You must always remain open for suggestions, and should take criticism in a healthy manner. It actually paves the way for improvement. Plan your own goals and aims, and make sure that you proceed as per the planning to hit the bull's eye.

### **Others**

- Planning skills
- Time management
- Crisis management
- Financial management
- Positive attitude
- Constructive and responsible behavior
- Decision making
- Adaptability
- Goal setting
- Execution skills
- Listening skills
- Problem solving
- Stress management
- Developing self-confidence
- Self discipline
- Emotional stability
- Strategic thinking
- Interpersonal skills
- Observation skills



These were some of the most decisive factors that would help develop self management skills. These skills help lead a stress-free life with confidence and optimism.

## Conclusion

Self-management practices have a larger impact on the quality and quantity of individual output and personality. Improving self-management skills is key to increase all productivity dimensions and in particular the quality of the output. This article contributes to a better understanding of the self-management practices on different levels and dimensions. It is a blend of the various skills to improve the creativity, problem solving, self discipline, strategic thinking, interpretation, analyzing skills etc. in the combo.

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***Management Information System: Creative Ways of Handling Challenges***

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**ABSTRACT**

One of the main branches of management is information technology management (responsible for management information system). The MIS is described and analyzed in the light of its capability for decision making. It is the computer system that provides accurate and timely information for decision making and helps the organization in planning, controlling and operating in efficient manner. It involves three primary resources: people, technology and information. Management Information System is different from other information systems because it is used to analyze the operational activities in the organization. It is a key factor to provide and attaining efficient decision making in an organization. It is basically concerned with processing data into information and finally communication to different departments for further decision making. It is mechanism to ensure that information reaches to its managers in original and timed manner. Academically, the term refers to group of information management methods attached with the support of human decision making like decision, expert system and executive information systems. The MIS is dynamic concept that changes with the time and also changes with the change in business management process. It continuously interacts with internal and external business environment which helps in providing corrective actions for the required changes. This paper focuses on understanding the concept of MIS, the need for MIS, the advantages of MIS in the organization, challenges related to MIS and its implications in Business.

**KEYWORDS:** Management Information System (MIS), Information Technology, Decision making.



## **INTRODUCTION**

After several economic reforms, business firms have not only to compete with the local firms but with global firms also. In such situations the manager has to take quick decision making to grasp the opportunities as and when arises, failing which the competitors can take the advantages of such opportunities. Hence quick decision making is the most important aspect which can be performed through MIS. The quick access and upto date view of business is necessary so that the customers can be responded quickly and business can grow more profitably.

Secondly, in the era of internet and low cost high capable hardware components, the firms have to collect abundance of data from internal and external sources. However only a few firms capitalize this opportunity.

So it is necessary that the firms should uses such resources which assists them in the challenging job of decision making and control. In such a situation MIS is considered as the main components of successful organization.

## **OBJECTIVES OF THE STUDY**

- To study the concept of management information system.
- To study the role of MIS in business.
- To analyze the advantage and challenges of MIS in business.

## **CONCEPT OF MANAGEMENT INFORMATION SYSTEM**

MIS is considered as organized, diverse and automated information system that is concerned with the process of collecting data from various sources and compiling it in various relevant information in order to support the management operations of the organizations. Processing of data takes place in the form of graphs, tables, charts, diagrams, reports in order to generate accurate and relevant information for the management. MIS is a computerized database of

financial information organized and programmed in such a way that it produces regular reports on operations for every level of management in an organization. Its main purpose is to give managers feedback regarding their own performance and the performance of company as a whole. Usually MIS is defined as a systematic and scientific approach to combine all information (internal and external) into integrated information useful for business.

**“MIS is a broadly used and applied term for a three resource system required for effective organization management. The resources are people, information and technology, from inside and outside an organization, with top priority given to people. The system is a collection of information management methods involving computer automation(hardware and software) or otherwise supporting and improving the quality and efficiency of business operations and human decision making.” -Technopedia.**

MIS provides faster access to the required information which helps the organization to makes effective and timed decision in every aspect of business like investments, employments, products etc. depending on the organization. Basically MIS provides four types of information to the organizations i.e. Descriptive(related with the current reports and answering what is situations), Diagnostic(pertinent to what is wrong by comparing the actual results with the standardized results), Predictive information(related with the future aspects of business and provides answers to what if questions) and Prescriptive information(helping the firms in providing solution for decision making based on firms' goals and strategic objectives).

#### MIS MODEL

MIS model starts with collection of data and information from various sources and storing it in the database through accounting information system. The information is then sent to the report writing software in order to generate periodic and special reports. The information is also analyzed through mathematical simulation to analyze and relate various aspects of organization's operations. The results of report writing software and the mathematical model are sent to the

decision makers of the organizations for efficient and effective decision making. In this way the process of MIS takes place.

## **BENEFITS OF MIS IN BUSINESS AND INDUSTRY**

MIS can be treated as the heart of business and industry. Just as the function of heart is to supply the blood in human body in order to pump up the body, the function of MIS is to provide the necessary information throughout the organization for the diversified needs and for decision making. Thus the role of MIS in the organization is very important.

Role of MIS in organization:

- Satisfaction of diverse needs: MIS helps in completion of diverse needs through variety of systems like query system, analysis system, modeling system and decision support system.
- Decision maker: MIS plays the role of decision maker by providing relevant information through specific reports generated from mathematical simulation and computerized software.
- Helps in coordination among departments: MIS helps in creating coordination among several departments by exchanging several information and helps in establishing sound relationship among the peoples of different departments.
- Helps in finding out problems: MIS provides necessary and relevant information about every aspect of the business and organization. If any error occurred on any level of organization, MIS can detect the problems and may provide solutions for this.
- Helps in comparison of business performance: MIS stores all past and present data in its database. Through report generating software and mathematical models, it can generate current reports which can be compared with standardized reports as well as past reports which helps in analyzing organizational development and growth.

Role of MIS at different levels of management:



- ✓ Top Level Management/ strategic users: MIS helps the top level management in setting goals and objectives, strategic planning and implementation by providing strategically analyzed reports and relevant information.
- ✓ Middle Level Management/ managerial users: MIS helps the middle level management in short term planning, target setting and controlling the business operations by the use of management tools of planning and control.
- ✓ Operational Management/ operational users: MIS helps junior management by providing the operational data for planning, scheduling and control and helps them in decision making at the operational level to correct an out of control situation.

#### Role of MIS in Human Resource Management:

- Helps in improving the skills of human resource through training and development.
- Improving the productivity of employees through MIS.
- Helpful in reducing the costs.
- Helpful in minimizing the efforts of employees through automating repetitive and simplified duties.

MIS plays a very important role in the organization, it has its impact on marketing, finance, production and personnel. The tracking and monitoring of functional targets becomes easy through MIS. It helps in forecasting and long term perspective planning.

#### **ADVANTAGES OF MANAGEMENT INFORMATION SYSTEM**

MIS creates a big difference for an organization. It is very important in today's dynamic environment. It provides several advantages to the organization:

- Helps in managing data: MIS helps in maintaining and managing business data for helping in the complex decision making by the management. The complex data is stored in the database of MIS in an organized way which can be accessed whenever needed.
- Helpful in analyzing trends: Management needs information for strategic planning and achieving future goals. MIS provides such information through the use of mathematical tools and also helps in prediction of future trends on the basis of current trends.
- Helps in strategic planning: MIS reports helps in identifying the resources that are required for achieving the objectives of the company. In this way MIS helps the organization in strategic planning.
- Goal Setting: MIS reports provides the information about the current trends of the company and also the future trends which can be used as a base for goal setting in future. Hence we can say that MIS helps in determining goals in an organization.
- Problems identification: MIS provides information about every aspect of business. The current reports are compared with the standard reports which helps in analyzing the variances and problem identification. MIS also provides the suggestions regarding the problem.
- Increases efficiency: MIS provides the relevant information on time which helps in achieving the objectives of organization as a whole and also helps in accessing the individual performances at every level of management. In this way MIS helps in increasing efficiency.
- Comparison of Business Performance: MIS database can be accessed anytime. It helps in analyzing current year performance and also helps in making comparison with past performances. In this way it helps in analyzing growth and development of business.
- Easy, Quick and relevant information: MIS provides the necessary information in the easiest form within a few minutes. Hence it provides relevant, quick and flexible information which may help in future prediction.

MIS helps in getting information in efficient and effective manners and ensures that employees do not have to collect data manually for filing and analysis. It provides a platform for building programs to access the data in response to queries by management.

### **CHALLENGES OF USING MANAGEMENT INFORMATION SYSTEM**

Management Information System is considered as an important part of the organizations. It provides several types of advantages to the organizations by analyzing the organization's data and information in a relevant and effective manner. However there may be some challenges that a company have to face after implementing MIS. Some of these are as follows:

- **High Cost of Implementation:** The main challenge in front of organization is the high cost of implementation of MIS. Also MIS required up to date information regarding all the changes on companies website. This may create a huge problem.
- **Opposed by employees:** The MIS system is opposed by the employees of the organization. Employees have to learn the necessary skills to operate MIS in changing and competitive business environment. If employees resist this, it may become difficult to stay in market.
- **Equipment and network problems:** The MIS system requires the electronic gazettes like computer system. The equipment should be purchased and maintained properly and time to time repairs are also necessary. Also problems like server crash and websites crash may arise which creates a huge problem in front of the organization.

### **CONCLUSION**

It can be concluded that management information system is an important part of the business organizations. It enables the business to stay prepared, forecast the changes and capitalize the opportunities by providing timely and accurate information. A rapidly evolving MIS is necessary for the growth and survival of business organization. However MIS may face the challenges like



implementation cost, resistance by employees, website and server crash and learning of new system by employees etc. hence it is suggested that proper planning is very important aspect before implementation of management information system. Along with it the cooperation from employees and harmony in project is necessary for the successful implementation. In the dynamic business environment, it is necessary for every organization to implement MIS so as to get quick and relevant information.

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## **A Strategic Framework for Customer Relationship Management: A Review on Banking Services in India**

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### **ABSTRACT**

In the present scenario of globalization and liberalization, marketing has under gone a metamorphic change to cope with increased competitiveness, changing needs of customers, continuous product up-gradation due to change in technology, changing marketing trends and many more. It is a business process, which seeks to match the organizations human, financial and physical resources with the wants and need so fits customers within the context of its overall competitive strategy. A customer is the “king” of the market. A customer is the most important person in the market. A customer is not dependent on us—we are dependent on him. Customer relationship management has become inevitable for growth and profitability of banks in present scenario marked by rising competition, technological advancement and empowered customers. In Indian banking Customer Relationship Management is still at a nascent stage. A very small proportion of its potential has been utilized. The concept has been implemented on a limited scale. This paper throws an insight into the customer relationship management and investigates the impediments to successful implementation of CRM and also study the Relationship Marketing and its impact of banking services in India.

### **Keywords**

Customer Relationship Management, Relationship Marketing, Banking Services

## **Paper Type:** Review and Viewpoint

### **Research Methodology**

The paper is based on secondary data. The paper is based on extant literature and internet sources have been used. The study focuses on extensive study of secondary data collected from various websites, various national and international journals and articles, publications, conference papers, books related to customers relationship management, newspapers, magazines which focused on various aspects of customer relationships.

### **INTRODUCTION**

Customers rarely wants imply to be sold to; they want to be valued. They want the in circumstances to be acknowledged and their needs to be satisfied. A customer is a person who brings us his wants. It is our job to handle them profitably. This demand for a matching of the suppliers offers to the customer needs is something greater than the resultant transactions; it is responsible for some kind of higher order business relationship.

Marketing today has led to a new emphasis in marketing, with a focus on relationship and the developments of the notion of relationship marketing and marketing is recast as a matter of relationship management. It does not a band on the fundamental principles of marketing, but builds them in to something more powerful and more relevant for today's competitive marketplace.

**Relationship Marketing:** Relationship marketing is a strategy used to learn more about customer needs and behavior in order to develop stronger relationship with them. Relationship marketing has emerged as one of the major marketing issues in the 1980's and 1990's.



Many marketers have considered relationship marketing as a necessary and effective way of achieving competitive advantage - through the creation of relationships, networks and interactions that are long-term. Despite the fact that the term 'Relationship Marketing' was introduced by Berry (1983) more than twenty years ago, there is still a lot of debate about what is meant by relationship marketing. Berry has defined Relationship marketing as "attracting, maintaining and enhancing customer relationships so that indifferent customers are transformed into loyal ones. In the relationship marketing perspectives, servicing and selling to the existing customer, are viewed to be as important to long - term marketing success as acquiring new customers. Good service is necessary to maintain their relationship, while good selling is necessary to enhance it. Besides above in the 1990's relationship marketing has become a topic of central importance in companies. Gronroos in 1990 formulate the relationship-focused definition of marketing, emphasizing the need to establish, maintain, enhance and commercialize customer relationship, through the mutual exchange and fulfillment of promises. In the service sector it has received the greatest attention. Relationship marketing is increasingly important source of competitive advantage in companies by which they serve their customers. More and more companies are moving towards using service and relationship building and service as a powerful means of achieving competitive differentiation. There is a not the major trend in relationship marketing i.e. the emergence of one-to-one marketing (McCarthy 1998). While the earlier perspective aimed at meeting the needs of segments of consumers, the new perspective treats every customer as unique. The quality of relationship with individual customer is emerging as a proper measure of success. Now it is possible to maintain data on individual

customers and address their needs on one-to-one basis. There is more attention given to customers and relationship marketing in terms of improved service quality, personalized care, reduction of customer stress etc. also benefits them. A high degree of customer contact, commitment and service are maintained.

The relationship marketing approach has gradually taken the shape of customer relationship management. Relationship marketing has a narrow focus on the customers and only focuses on the marketing functions of the organization concerned. On the other hand, customer relationship management focuses more widely on customers and on the entire functions connected with value creation and delivery chain of the organization concerned. Organization have preferred the usage of the term Customer Relationship Management (CRM) rather than relationship marketing because they face the harsh reality that brings an old adage to life- "You can please some of the people most of the time and most of the people some of the time, but you can't please all of the people all of the time". Today, Customer Relationship Management (CRM) is the key that fulfills the promise of helping sellers -please all of the people (customers) most of the times. To step over the threshold of the new millennium - the age of "never satisfied" customer, leading enterprises are identifying the need to change from a product-centric business to a customer -centric one. Organizations are slowly waking up to the benefits as well as the challenge of changing processes that are necessary in this age of never satisfied customer.

## **Objectives of the Study**

The research intends to focus on understanding concept of customer relationship management and its impact on Indian Banking System.

Accordingly the objectives of this study are:

- To cognize the concept Customer Relationship Management.
- To cognize the concept of Relationship Marketing.
- To highlight the needs of customer relationship management in banking services in India.
- To study the impact of customer relationship management in banking services in India.

## **Regarding Availability of Infrastructure**

In this regard, it is found that the basic infrastructure for CRM i.e. computerization, phones, fax, ATMs facility, Internet banking etc. are available in bank. Banks are contacting with their customers through phones, fax, Internet, mobile banking, website but it was not sufficient as the infrastructure was not adequate enough to handle their big cliental. It was a difficult task to deal the customers with less equipment. The study depicts that both some public and private banks branches had failed to provide the certain services like mobile banking, tele - banking, Internet banking, and electronic fund transfer system.

## **Suggestions**

Whenever an innovative product is launched in the market, the marketer needs to create its awareness amongst the existing and prospective

customers. According to AIDA model of communication the first step in any marketing communication is the creation of awareness in the market followed by interest, desire and action. In order to increase the awareness level of customer's the following suggestions are likely to ensure better utilization of wide spectrum of bank services.

#### **1. Computerization:**

Introduction of computers for front office banking are proved to be very useful. Improvement in customer service is visible, customers are getting their accounts in time, interest calculations are done accurately, books of accounts are being balanced promptly and branches now, are in position to submit various returns and statements to their controlling offices used in time. But some employees faced difficulty. Therefore bank should provide them time to time training so that they would not face any difficulties.

#### **2. Phones:**

The phone facility is available only in branch manager room. Therefore it is suggested that a phone facility should be provided to each bank employee so he/she tackles the customers' problems by sitting on their seat.

#### **3. Faxes:**

Banks used fax machines to send messages or other details etc. and at present the branch has only 1 or 2 fax machines. Therefore to handle some unforeseen condition there should be more than two or three fax machines in the branch.

#### **4. ATMs:**



ATM is abbreviation of Automated Teller Machines. ATM is user - friendly system and customer does not require any training to use it. But the study found that availability of ATMs counters is not sufficient. Therefore it is suggested that more ATM facility should be given to the customers and it should be opened near at bus-stand, railway station, near hotel and park etc. location of ATM should be convenient for the customer benefits and facility.

#### **5. Internet Banking:**

Internet banking allows the customers to use the Internet for the basic functions like making enquiries about balances, electronic communications with the bank through internet. It is suggested to the bank employees to make the people more aware about this service and its benefit.

#### **6. Tele banking and Phone banking:**

Technology development has totally changed the face of banking industry. Conventional banking where banking services were provided manually across the counter has come to the stage where customer is not required to visit the bank personally. But the 29 branches of public banks (PNB and SBI both) in some rural areas have not yet started the phone banking. Customers who wanted to do the transactions, they usually do by contacting the branch managers. Therefore, it is advisable for the branch to provide the facility as early to its customers.

#### **7. Mobile banking**

Mobile banking has also not yet started in 47 branches of public banks. In this, some branches are Internet driven. So, it is suggested to start it as early as possible, as in this era, Mobile banking is the most demanding

services, because it helps to show their transactions and account status through sms, which save the time of customer and prove convenient to the customers.

### **8. Electronic fund transfer system**

With this facility bank can transfer the money within 10 or 15 minutes anywhere from one branch to another. Private Banks employees use this services more frequently rather the public banks. Therefore, the employees are advisable to make aware the customers more to use these type of services.

Thus, in spite of the fact that the technological up gradation has become essential requirement of each economic activity, the banking sector is still in beginning stage in using electronic machines. Though to bring mechanization in the bank is a costly affair, but in order to provide speedy services to customers it is essential to use moderate electronic devices and services.

### **Impact of CRM**

In this regard the study concluded that dealing with the customers through phones, Internet and face to face contact has proven greatly beneficial to bank business. This lead to the reducing cost and increase customer loyalty by 91.1% and also by providing new services loyalty is increased by 100% in private banks. Banks profitability has increased about 25 to 50% (53.3% in total). As most of the transactions are done on computers and overall efficiency of the bank has increased with computerization of the banking environment and it leads to the conclusion that future of electronic devices in banks are very bright.

## **What are the benefits of CRM in banking?**

1. Boosted Sales
2. Increased Lead Conversion
3. Personalized Customer Journeys
4. Increased Productivity
5. More Efficient Communication
6. Inter-Department Data Tracking
7. Better Service
8. Improved Customer Experience
9. Increased Customer Loyalty

## **Regarding Awareness and Attitude of Bank Employees**

In a service organization like banks, its most valuable assets are their employees. The success or failure of their products depends to a large extent on the attitude and willingness of their employees. These organizations are therefore advised to not only do external marketing but also at the same time and rather more important is the internal marketing. Banks must make an internal survey of its own employees to know their attitude and to read their minds towards the customer relationship management. The different aspects of banker's attitude are concluded here in the following paragraphs.

There was a problem faced by employees for handling the various electronic tools. The employees of public bank faced more problems comparison to private bank employees.

Further in regard to problems faced by employees in handling tools it was found that banks give time to time training to their employees, so that

employees feels comfortable while using various electronic tools and it help to save their time as well.

As far as the type of media a bank should adopt for the awareness of its customers a significant differences were found in replies of the staff of both banks. Public banks prefer the newspaper, television, radio, magazines to aware the customers whereas in private banks phones, newspaper, TV, magazines are preferably used.

In regard to selection of channel Internet, the private banks preferably use websites and on the other side public bank used personal selling in comparison to internet.

### **Suggestions**

- Efficient and competent persons should be posted on the jobs.
- Employees need to be trained in developing a habit of usage of electronic tool.
- Maximum advertising media should be adopted by bank to get aware their customers of their services.

### **Reaction of Customers**

In this regard the study concludes that customers are also giving positive response. Most of the customers in the sample of the study were of 25-40 years age group; postgraduate, and Rs. 10,000 to 25,000 family income groups. All of them were aware about the different service provided by their banks.

Banking is essentially an industry which carries on its operations mainly based on the confidence and faith of its customers. It has undoubtedly to grow on the quality of service rendered by it, since service is the end



product of a bank; the efficiency of a bank depends more on how best it can deliver goods to its customers rather than simply the volume of business carried on by it.

Furthermore, the customer's requirements are getting more and more sophisticated. Today's customers want personalized care and attention. Besides, there still remain large rural area customers untouched by the banking services and the government is visualizing a more dynamic and purposeful role for the public sector banks in attaining the socio-economic objectives.

There is a need to response and enlarge the package of rural banking and urban banking offered in tune with the changing customers preferences. The standardized sets of products and services offered by the banks are, therefore, no longer sufficient to meet the diverse needs of the customers. Thus, banks faced with a situation where continuous innovations in products and services have been called for. In order to make these products more oriented towards customer's needs, attitudes and their perceptions and preferences need to be continuously monitored and incorporated into the product/service features.

**Besides the above written suggestions the various other suggestions for bank management are given below:**

### **Helpful Attitude at the Time of Opening of Account**

Bank staff should be motivated to help the customers at the time of opening of new account or filling up the forms and finalizing various procedural formalities. Enquiry counter is a necessary facility for the convenience of the customers. Banks should provide a separate counter in each branch and the

person at the enquiry counter should be especially motivated and trained to be polite and helpful to the customers. The staff at this counter should in particular be asked to provide all the necessary assistance particularly to new account holders. 'MAY I HELP YOU' counter should to give guidance and assistance to the customers.

### **Better Promotion of Bank Service**

The awareness level of customers (rural and urban) was not found sufficient particularly in the age group of above 60 years. Majority of customers as revealed by the study were unaware of the banking services and particularly rural customers are not enjoying any business promotional services. Banks should make the present and prospective customers to be aware of the service package they offered by distributing information booklets, pamphlets on various schemes. Banks should always try to get in touch with the customers and make them aware of the various new schemes and services.

### **Prompted Method**

**Service delayed is service denied.**The bankers must not forget this fact. In selection of a bank different factors are considered by the customers i.e. tangibility, reliability, responsiveness, assurance and empathy, and competitive strength. In regard to tangibility customers are found moderately prompted. Thus it is suggested for tangibility banks should also go in for computerization because with the growing volume of business and number of clientele and changes in quality of work, banks can't continue to depend upon the old manual techniques. Introduction of computers for front office banking at some of the large banking centers will result in immediate and visible involvement in the customer service. Time required for cashing of cheques and other instruments will be reduced and its result less queues.

## **Customer Care Policies**

Generally complaints highlight the areas of weakness in bank service, which needs improvement. There should be positive approach to complaints in banks. The bank employees should not behave in adverse manner with the complainants. A satisfied customer of the bank is an unpaid publicity agent for the bank is equally important, in the fact that the highly dissatisfied customer is an unpaid agent for carrying on a campaign against the bank. The choice is that of bank. So that banks provide different policies to customers for their care which helps in maintaining the CRM.

## **Motivating Bank Staff to be more Customer-Oriented**

From the study it concludes that bank customers are not fully satisfied with the bank staff. It is suggested that bank employees those who are in direct contact with the customers should be motivated to be polite and helpful to the customers. Employees should try their best to provide maximum help to the customers who come to them. Customers must be welcomed with all courtesy. Courtesy should be repeated every time the customer comes. Customers come to the branch for prompt attention, courtesy and good words which do not cost anything to the bankers. Moreover, bank employees should treat all the customers at par so that customers don't feel the necessity of developing some personal contacts with the branch staff to cut short their waiting time.

## **Bank Charges**

Private Banks charges higher for their services rendered by them as compare to the public banks for the same services. It is suggested that the banks should reduce the service charges so that customer gets attracted towards their different policies and schemes.

## **Better Maintenance and Upkeep of the Branch Premises**

Surroundings in which customers have to make their transactions leaves strong impressions, taking place them, quality of their services. Since this aspect is directly linked with bank's concern with the welfare of its customers, it becomes very important for banks that premises are properly maintained and kept clean and all amenities like seating arrangements for them in banking and the tables of appropriate height for filling up various forms / slips, counters should have sign board of the transactions being handled at those counters for the convenience of the customers, special attention should be paid to see that drinking water is available to the customers. The booklets comprising the elucidation of services should be distributed to present and prospective customers so that a big chunk of customers and non-customers may come to know the latest services being rendered by the bank and attractive advertisement highlighting the gains from banking should also be released.

Surely these suggestions imply an increase in the workload of staff. Yet this will ultimately benefit them by increased banking business and helps them to maintain the good relationship with customers. So, that their purpose of customer relationship is fulfilled.

## **CONCLUSION**

In this regard the study found that banks have made a lot of efforts for maintaining relationship with the customers. Banks provide the new-new services to their customers. The bank has opened the customers care department as its head office, websites to satisfy the customers, appointment of person in banks. The bank has facilitated the grievance - redressal machinery to handle the customer problems. Bank has used the different



marketing channels and advertising media to make aware the customers regarding its new and moderate schemes. Public and private banks have made about 25-50% of total expenditure whereas public banks spend 50-75% of their total expenditure for providing new-new services for betterment and acquiring the new customers and retaining the existing ones. Banks also have given various types of incentives to their employees for attracting the customers in addition to monetary the non-monetary benefit given by banks i.e. (48%) by appraisal their work. Therefore, it is suggested that bank should give monetary benefits with non-monetary benefits to their employees, for good services and whatever efforts they had made to strengthen their business and acquiring the customers.

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**Woman is "Swayamsiddha" in the poetry of Dr. Rashmi Bajaj**

↓  
"Woman of spirit"

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**Abstract :**

Dr. Rashmi Bajaj, the poet thinks highly of women and feels that woman is still alive and powerful. The woman with her unflinching faith and unwanted courage in herself, everyday she falls and rises, sometimes feels disheartened but gathers strength and moves on to the path of her life. The stark reality shatters her dream every time but she weaves a more beautiful new dream for herself. By undergoing the trial & tribulations, every woman gains her inner strength that makes her a woman of the spirit or a "Swayamsiddha". The paper under study deals with the poems of the poet's book, "Swayamsiddha"

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**Keywords :** "Swayamsiddha", disheartened, strength, faith, reality.

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"What does it mean to be a woman?" – I think, every woman very well knows that she may assume herself as a 'Human Being' but the world in which she lives, does not let her forget even for a second that first and foremost, she is 'a woman'. This gender identity is her first and the last introduction, opines, the, poet, Dr. Rashmi Bajaj.

The grand and closed doors of the mosque, the reserved and divine campus of the temples, the wailing 'Designer Homes' of the women celebrities, the 'Terrifying Mothers' Wombs, the celebration of a girl child's birth for media coverage, the 'Dhaal-Budkale' prepared by the sisters for their brothers' well being during Holi festival and other such incidents remind a woman, even in the twenty first century that she is nobody except a 'Universal Dalit' (p. 9-10) Moreover, anti-feminine group, in the name of religion, caste and creed is constantly trying to prove every woman as a lonely and helpless person.

*"How lucky  
I am, a woman  
'To Be' or  
'Not to Be'  
The pangs of it  
Are not for me.*

*My all  
Decisions always  
Are taken  
By someone else... "*

(p.35)

In the second part of her book, "Swayamsiddha", The poet, Dr. Rashmi Bajaj provides solution to the problems of every woman. She says : "Now in the blank and wet eyes of a woman, there are no dreams of a golden dawn. Rather she has learnt to be the sun for herself." (p.67).

The poem, "Raajpeeth" describes a woman's inner strength The poet says :

*"The more you desired  
To suppress me,  
To torture me  
To eliminate me,  
The more I  
Became  
Courageous.*

(p100)

This inner strength of woman is further appreciated in the poem, "Naya Inquilab" :

*"One day  
Veil, Burke'  
Be removed.  
Religion and  
Caste'  
Differences be eliminated,  
Every wall  
Of hostility  
Be demolished,  
All the wounds  
Be treated,  
Only a woman here  
Will usher a new  
"Inquilab" (Movement)  
Of Love..... "*

(p.103)





The poet salutes a woman for her courage in the poem, "Zurraat" :

*"In this melancholic  
Era too  
To laugh and to make others laugh  
To dance,  
To celebrate,  
To weave dreams,  
To shower love,  
Only a woman,  
Can have  
That courage."*

(p. 76)

And in the poem, "Nahin Marti Ishtri", the poet Dr. Rashmi Bajaj says :

*"In spite of the conspiracies  
A woman does not die.  
The nectar of a woman  
Is hidden in her  
Womanhood."*

(p. 106)

The poet treats a woman as an Empress in the poem, "Samragyi". She says :

*"Does not know  
This world,  
That every  
Woman  
In dreamland  
Is  
An Empress."*

(p. 97-98)

In the poem, "Pyari Dadi", the poet celebrates the birth of a girl child in these words :

*"In my village  
The granddaughter has taken birth,  
And Dadi  
Liberates  
A woman  
By celebrating  
Her birth.....As  
A woman  
Will be liberated  
One day  
By a woman."*

(p. 93)

In the poem, "Bahut Bahut Sunder", the poet encourages a woman to love herself. She says :

*"How  
Good it is  
To be in love  
With a man;  
But it is  
More beautiful  
Sometimes  
To come out of  
Man's love  
And  
To be in love  
With herself."*

(p. 96)

In the poem, "Ishtivad" describes a woman as :

*"Some incidents  
In this World  
Take place  
For/with  
A woman;  
Listen, you  
The intellectuals!  
Until  
Is alive  
A single woman  
Can't end*

*This feminism ('ishtivad').*

(p. 82-83)

In the poem, "Sampuran", the poet says :

*"A woman  
With another woman  
Becomes  
Depression less  
Blessed  
And long lived.....  
Will become  
The life of a woman  
Complete when  
Intimate  
To that woman  
is any woman too."*

(p. 81)



This woman is 'puranrupa' as she completely surrenders to the wish of her man. She says :

*“Whatever  
You desire,  
Dear!  
Says she  
By smiling;  
Stealthily  
And secretly Undergoes  
Her inner journey;  
Becomes  
A woman  
Everyday  
In herself  
'Puranrupa'....*

(p. 87-88)

The poet thinks that “inside the heart of a woman, a flame is burning that can't be cooled down. Many names will be given to it as 'Feminism' or 'Humanism'. But a long struggle will continue unless she is not understood as a “Human being” ('Aag' poem p. 72). A woman can't be captured in epics as she is “Swayamidha” (p. 75) herself. Acc to the poet, “inside the heart of a woman, there is a room where no one can enter. But she herself becomes mentally stable by sitting there whenever she wanted to” (p. 105)

In the poem, “Maha-Mahotsava”, the poet celebrates womanhood :

*Why?  
The life of a woman be  
Any sorrowful song,  
Any last Journey? (P.107)*

“In every direction, street, nook and corner, let us celebrate the grand celebration (Maha-Mahotsava) of womanhood!” (p. 107-109), says the poet.

The poet is hopeful of “Istri-Nirvana” as she says “Woman liberation is not impossible. Rather, every moment, it is possible. A woman is only a few steps behind away from that liberation as she is engulfed to her lover on the one end and to her progeny / issues on the other end.” (p. 23) - *Asurderkand*, Part - 1

Dr. Rashmi Bajaj, in her collection of poems titled, "Swayamsiddha", expresses her feelings in these words :

*Can take the risk  
Of expression  
Only a woman.  
Doesn't have  
To lose  
Or Gain  
Anything. (p. 17) "Swayamsiddha".*

How a woman is different from a man says the poet in the poem, "Bahut Alag"

*"I woman  
Do Sleep  
When and how much  
Can sleep,  
Do eat,  
When and that much  
Could eat." (p. 29)*

In the poem, "Meri Aukat", the poet says that a woman is treated in the same way, irrespective of the status she has in the society. A woman whether she is a queen, a beggar, a thakur, a Brahmin or Balmiki's wife, she has only one 'identity'

*"I  
Am only  
A Woman" (p. 30)*

In the poem "Zaziya", the poet remarks :

*"Every moment a woman  
Gives here  
Tax/Zaziya  
For her being alive!" (p. 63)*

In the poem, "Saubhagyashalini" the poet shows that a woman is always deprived of taking decisions even for her own life.





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To sum up, "Swayamsiddha" is a courageous feminine challenge to those who believe in traditionalism, modernism, Manuism and other cults like these. All the poems of Dr. Rashmi Bajaj force both men and women to think and act differently for a better society and better tomorrow.

**Reference :-**

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## CULTURAL STUDIES AND INDIAN CUSTOMS IN THE WRITINGS

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Culture encompasses social behavior, belief customs, norms and value found in human societies round the globe. The term ' culture' is most commonly used in three ways- ' excellence of taste in the fine arts and humanities, also known as high culture' , ' an integrated pattern of human knowledge, belief, and behaviour' and the out look, attitude values, moral goals, and custom shared by a society' . Accordingly culture can be defined as socially inherited, shared, and learned way of living possessed by individuals by virtue of their membership in social groups.

Culture is what puts people in place. The word took its form from the French word CULTURA which connotes " to cultivate" . " to till" , and to grow." Allegedly, culture is a process of growth through the means of education, discipline, training etc.

Rajagopalachari Stated " Culture is not just character or morality. Charater is the inside of man. Culture is external rather than internal. Culture has more to do with behaviour and way of living than with character. Broadly speaking, culture is external through of course it has much to do with character too. Because, the outside has always much to do with the inside."

The word culture in truest sense of term is used to describe the values, beliefs and attitude of a particular place. It is about how people live and worship and about other music, art and literature they produce over generations. It occupies a very important place in human society. Broadly speaking, culture signifies growth. It is the sum total of all the custom, traditions, institutions etc., inherited by people. A person with good moral values, character and conduct is said to have a good cultural background. The earth has seven continents which otherwise mean huge areas of land. Each continent is made up of several countries. The people living in each country speak different languages and have different culture. They have different ways of life like music dance, art, food, belief, history, clothing, sports, celebrations





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etc. The term culture is commonly used in sociology, anthropology, and social Psychology. It has been applied to many different sized units of society, from western culture down through U.S. culture, southern culture, suburban culture, from broad aspect of society to very small social units. To put it in simpler terms, it can be said that culture is man-made part of the human environment.

There are two distinct theories on the origin of culture. One is the diffusionist theory which says that every idea, motive or innovation has an epicenter and the other is evolutionist theory, which recognize corresponding ideas, if not identical, or innovation at every stage of human development. The diffusionist group gives credit to Mesopotamia and Egypt as the dispersal centre for the spread of urbanization, north of Black Sea region for the spread of Indo-European Languages, Turkemia for the pottery and ceramic design and so on. From the ancient past, people have always migrated from one place to another for survival and economic reason. To what extent the culture has been modified or changed by diffusion process is always a debating question for any culture. Culture has to be distinguished from civilization since an is often confused with the other. The concept of culture evolved gradually. The word culture made its appearance in the English Language in the 16<sup>th</sup> century to keen "cultivated". But within two centuries the two terms cultured and civilized were used to refer to a cultivated or civilized person. But is was only in Germany in the 19<sup>th</sup> century the word culture was used to all aspects of the social life of a community. The word civilization is now used to indicate higher and more developed form of culture especially of the cities.

India is world famous for her unique Hindu religion, culture and civilization. The culture of India is deep rooted into the past. The background of Harappan-Kalibangan findings confirm immense potential of this country to become a great nation. This ancient Indus civilization mysteriously disappeared for unknown reason but the remnants exhibit many good and great things of the past which are still magnificent examples of the present.

Religion is very important in Indian culture and in people' s lives. It can determine where and how people live, whom they marry, what food they eat and how they dress. Majority of the Indians are Hindus and Muslims from the next largest group. There are smaller number of Christians, Sikhs, Buddhists and Jains. Hindus follow the religion of Hinduism, which goes back at least 4000 years. Hindus have many different beliefs and ways



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of worshipping. Most Hindus believe in great spirit called Brahman. Some Hindus call Brahman " God" . They also believe in many deities who represent Brahman' s different qualities and powers.

Vyas opines " The entire edifice of Indian culture is based on the foundation of spirit. Her religion, art, literature everything has drawn inspiration from the spiritual outlook alone. The source books of Indian culture can be called " Shruti-smriti Puranokta' , i.e. based on the Shruti, Smriti and Puranas" . Indian culture was shaped by the Itihasas and Puranas too. The Ramayana and Mahabhartha are considered to Itihasas, while the Puranas consist of Mahapuranas and Upapuranas. The two epics and the puranas are repositories of Indian culture.

Indian culture is dynamic and never static. It is a fusion of old traditional values and the modern principles, thus, satisfying all the three generations in the present India. The elite businessmen and the common vendor on the roads share the same news and workship the same deity. One cannot approve Indian culture to be the many facets of the society but considering its people and the way they view Indian culture make one feel it is true. Indian culture is compared to a rolling dice which has different facets due to its enormity of diversified population called race. The spectacular background Indian culture carries on its shoulders is to be ascertained to the fact that it is as old as mankind itself. India is a home for money such as Hindus Buddhists, Jains, Jews, Christians, Muslims, Parsees, Sikhs and others.

Sachindananda Murthy opines " In Indian culture, unity in diversity is generally advanced by scholars of different shades of Vedanta, Buddhism, Christianity, Islam and indeed, all other religious faiths.

The culture of India comprises Humanity, Tolerance, unity Secularism and a closely knit social system. It is very pertinent to everyone that Gandhiji' s Satyagraha principle or Ahinsa-Freedom without taking a drop of blood, worked wonders and gave credit to India in international arena. Indian culture is also one of the oldest cultures in the world. India culture is Pluri cultural in nature and modern India presents a remarkable cultural diversity throughout the country. Indian culture teaches us to multiply our joys and share our sorrows and jointly develop co-operation and better living amongst ourselves and subsequently make this world a better place to live in.



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Anita Singh opines " Culture, as we know, includes knowledge, belief, art, moral law, custom and other capabilities and habits acquired by man as a member of society. Man is also affected by cultural displacement and shocks. This displacement implies co-presence of more than one culture, biculturalism or inheritance. Culture shapes man' s integrated behaviour or his behaviour patterns, in a way refinement comes through cultured behaviour. Every culture has the misfortune to undergo shocking split of the self. Each culture possesses a quality of affecting the mass which lives in its contact-be it Asian, European, African or American.

Rama Kundu in his book shares. His experience with the readers thus: " In July 1998, I had the chance of visiting a spot in the remote countryside of England, a two hour journey by car from Coventry towards welsh. A little way from the railway station of welsh ale there stands a sprawling monastery called ' Vedanta math' . It is run by saffron clad Dutch and British Sadhus and sannyasins, who Perch Shankaracharya' s ideals and philosophy in immaculate Sanskrit. When we reached, the elderly Sannyasins greeted us: " You are from India. You are blessed people." This I mention as just another evidence that India continues to be fascination, a goal, an ideal for the western imagination, at least for a segment of it."

The two great Indian epics The Ramayana and The Mahabharata are frequently compared with the Iliad and Odyssey. But the former tends to be colossally longer than the latter and needless to say that the Mahabharata alone is about seven times as long as the Iliad and the Odyssey put together. These two great epics give sheer entertainment and intellectual stimulation as one waddles through the long tales full of dialogues, dilemmas and alternative perspectives. One also encounters masses of arguments and counter arguments spread over incessant de debates and disputes.

It is a fact that the Indian culture is grand and unique and has fostered other cultures. Mahatma Gandhi was himself a great exponent and representative of Indian culture. His preaching on Indian culture was what he practiced in real life. He urged his fellow beings and countrymen not a remain aloof from one another or to erect walls around as it means to show one' s narrow-mindedness and rigidity and in the impact losing one' s entity. Ravinder Kumar opines " Gandhi' s views as a representative of India culture are founded on facts, for they present it in right perspective; they make him an embodiment of cultural heritage. In brief, these views along with his conduct conforming to them will always remain capable of guiding one and all who would work with a desire to keep the true Indian culture alive. It is



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not all; they will also be a source of inspiration of all others cultures to the world for their longevity" .

In fact every culture has a body and soul. The body consists of its visible elements and soul, its invisible elements. Culture is not objective because each person more or less is locked with in a culture, a part of human life. However, culture is the act of developing by education, discipline or social experience. It is the training or refining of the moral or intellectual faculties. In brief, culture is the total pattern of human behaviour and its products embodied in thought, speech, action, and artifacts. According to E.B. Taylor, " culture is that complex whole which includes knowledge, beliefs, arts, morals, law, custom and any other capabilities and habits acquired by man as a member of society."

One of the early scholars of cultural studies in Britain, Raymond Williams (1963:16) defines culture as " an individual habit of mind; the state of intellectual development of a whole society; the arts; and the whole way of life of a group or people." The aim of culture is to pursue perfection in all walks of life. It is capable of developing the faculties of man in a harmonious and balanced manner. So the cultured man perfects not only himself but also the world. In addition, the 19<sup>th</sup> century British poet-critic, Mathew Arnold (1946:48-9), has defined culture in various ways. According to him; " it is sweetness and light, it is the best that has been thought and said, it is internal to the human mind and general to the whole community; It is a harmony of all the powers that make for the beauty and worth of human nature."

These definitions underline culture' s dynamism and its presence in every aspect of social life. In brief, culture includes knowledge, beliefs, morals law, customs, opinion, religion, superstition, and art, a complex typical behaviour or standardized social characteristics peculiar to a specific group, occupation, profession, sex, age or social class.

People do not just form cultures. They also form much smaller groups within society which use term sub-cultures. When we use the term sub-culture sociologically, we are referring to a group of people whose behaviour has features that set it apart from the wider concept of culture of the society in which it develops. For example, in Britain we recognize the youth category teenager as a distinctive sub-cultural group. Although teenagers may develop interests and behaviour that are unique to this group that is the ways of dressing, the kind of music they enjoy, a particular form of language. They hold even their own religious



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beliefs and values. It means that social behaviour is always dynamic. There is a continuous flow of influence from one culture to another as each culture depends upon the religion, age, gender, social class and the ethnic background.

A cultural study is an academic field of critical theory and literary criticism. It is an innovative interdisciplinary field of research that investigates the way in which 'culture' creates and transfers individual experiences, everyday life, social relations and power. At a time when cultural studies have become detached from economics and politics, the works of Raymond Williams and Edward Said provide a valuable focus to rethink about cultural studies. Both are acknowledged as the foremost cultural theorists of our times and represent different intellectual and political positions. Raymond Williams is a Marxist and Edward Said is a non-Marxist, yet their works have been many common themes, shared values and concerns.

Williams rejected not only the minority version of culture but also the crude Marxist generalization about bourgeois and popular culture. He rejects the concept of 'Mass culture', according to him, to acknowledge mass culture is to fall into the conservative trap, to accept that there is a minority culture. He sees 'mass culture' as an elitist construction. Williams proposes the idea of a common culture—a culture that is not based on exploitation, but on collaborative effort and enriched by working class attitudes and values. If we think of culture, as it is important to do, in terms of a body of intellectual and imaginative work, we can see that with the extension of education the distribution of culture is becoming more even, and at the same time, new work is being addressed to a public wider than a single class. Yet a culture is not only a body of intellectual and imaginative work, it is essentially a way of life. Williams' description of culture in terms of the dominant residual and 'emergent' is of critical significance to culture theory. The chief value of Williams' cultural theory lies in its recognition of the materiality of culture.

Without reducing culture to the economic level or elevating it to the ideal, Williams showed how culture participates in other social practices—economy, politics and ideology. Through his formulations of cultural materialism and structure of feeling, Raymond Williams focused on the political economy of cultural production on the question of economic inequality and oppression and persistently thought in terms of a socialist society. Williams has greatly influenced the debate on culture in the present country.



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### Indian Customs in the writings of R.K. Narayana.

R.K. Narayan, one of the finest Indian authors of his generation writing in English. His first Novel, Swami and friends (1935), is an episodic narrative recounting the adventures of a group of schoolboys. The novels of Narayan help in understanding the nuances of India culture such as traditions, customs, religious beliefs, faiths, social hierarchies, family system, bitter & sweet melodies of love and marriage, conflict between Indian and foreign cultures etc. Narayan depicted India of his times and its customs and traditions, myths and magic' s, epics and fairy tales, his novels portrait a true picture of India during the British rule.

Narayan, with his keen observation of the various beliefs and faiths of Indians along with the customs and conventions that prevail in India, has presented them all through his novels and short stories with a meticulous regard for verisimilitude. Narayan was a traditionalist and his novels are the mirrors of the Hindu customs and traditions adhered to by the overwhelming majority of Indians. He vests most of the characters in his writings in traditional grab. Some of them are discussed here.

In ' The Financial Expert' Narayan has portrayed the character of Margayya as a very greedy Indian who brought his own ruin with his greed. Margayya was a money Lender and he located his office beneath a banyan tree in the compound of a cooperative bank. The bank authorities drove him away from that place. He lost his earnings and suffered a lot and thereupon consulted the Hanuman temple priest. Here Narayan depicts Margayya into a miserable condition. If margayya wanted to consult, there were many other financiers in the town. But he was made to consult only the priest of a temple. For priests are believed to be well-versed with scriptures dealing with the cause and effect of the sufferings of human life, Margayya hopped that the priest would be able to suggest a remedy for his own sufferings.

And when the priest offered some milk to Margayya, the latter pushed aside the tumbler with his left hand. The priest warned margayya not to refuse milk when offered, as milk is considered to be Goddess Lakshmi Devi. According to the priest those who insulted her would be punished by her.

The Priest advised Margayya to perform Lakshmi Puja with ghee made from cow' s milk for lighting the lamps before Goodess Lakshmi, and red lotus for performing puja. These are traditional rituals cow' s ghee is considered sacred and red lotus symbolizes





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knowledge. Narayan seems to say that God along gives us peace of mind when a man is surrounded by worldly troubles.

Jagan in ' The Vendor of Sweets' went to Badri hills with his parents and wife seeking the blessing of Santhana Krishna According to his faith, he had Mali with in a year after his pilgrimage.

Raju' s mother in " The Guide' is portrayed as a traditional woman and she sings same hymns on God after lighting a lamp in front of God' s portraits everyday and she goes to temple every evening to worship God. This is a custom and the lighting of a lamp is treated as Gyana-Jyothi that destroys the ignorance of one and gives enlightenment. His holiness Sri Kanchi Paramacharya observes that the purpose of prayer is to find relief from the heart-aches of life by communicating with the one who will give ear to what is said and who alone can heal them. This is why people visit temples. Raju' s mother in ' The Guide' believes that if there is one good man it would rain for his sake and all the world would benefit. From his childhood Raju has been listening to her words and in the end he sacrificed his life for the sake of the people who wanted rain. This reminds us of the story of sage Righyasringa.

Narayan gave much importance to the religious rituals in his novels. As per Hindu Sastras from cradle to grave there are several ceremonies, associated with every walk of life. The first and foremost ceremony performed by Indians is Namakarnam to the new born child. In ' In vendor of sweets' this ceremony is described elaborately.

Next comes Aksharbhyasam. This is school-going ceremony. People regard Vijayadasami as an auspicious day for sending children to school.

In The Financial Expert Margayya performs this school going ceremony with pump and glory.

The woman characters in The Guide and in The Painter of sign are symbols of traditionalism.

In The Dark Room Narayan described the Navaratri Festival. This is an Indian Tradition and in so many places especially in Mysore this festival is celebrated with much pump and glory.



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In ' India: R.K. Narayan and tradition' novels usually treat of those stand between tradition and modernity. He does not write of peasants or urban workers, rather he shows the townsman who still thinks in older ways, but inhabits the modern world.

Narayan' s view of life in his own words, ' Life is not normally either an Elysium or a vale of tears.' And he means it.

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## Photo Elastic Behaviour of Ionic Crystals

Madhu Rani\*

### Abstract

Photoelastic effect in crystals has been the subject of many experimental and theoretical investigations. It is associated with electronic polarizabilities and light scattering in crystals. Photo elastic constant is related to density derivative of refractive index. It is related to optical damage of solids by high LASER and self focusing of beam. The derivatives of electronic dielectric constant with respect to volume and lattice parameters are studied. A theoretical analysis of this effect requires strain derivatives of electronic polarizabilities which are difficult to find from model. The photo elastic behaviour of alkali halides is analyzed by assuming that change in polarizability is not responsible for electronic polarizability. In this paper, we analyze theory and models related to this and discuss aspects related to photo elastic phenomenon. We analyze relation of photoelastic effects to ionic radius, volume dependence of effective charge etc. Methodology used is based on theoretical discussion of various theories and models related to photo elastic behaviour and its various related constants.

**Key Words:-** Polarizabilities, light scattering, dielectric constant, ionic radius.

### Introduction

Photo elasticity of crystals is related to variation of refractive index or variation of electronic dielectric constant under hydrostatic pressure. Photo elastic effect in crystals is of great interest not only because of fundamental association with electronic polarizabilities, but also from the point of view of light scattering in crystals. It is also connected with problems of optical damage of solids by high LASER and self focusing of LASER beams. The dependence of energy gap on lattice parameter and volume has been evaluated to study the photo elastic behaviour. Even the empirical approaches suggested in the past have been indirect and can be extended in a straight forward manner to include other families of crystals. It is observed that photo elastic behaviour of alkali halides can be analyzed by assuming that change in cation polarizability does not contribute to electronic strain polarizability. The main contribution arises from strain derivatives of anion polarization. The strain derivatives of dielectric constants are related to photo elastic behaviour of solids. In this paper, we will study the relation between photo elastic effect to ionic radius. The methodology used is based on theoretical discussion of various existing theories related to photo elastic behaviour.

### Polarizability and Photo elasticity

Studies on volume dependence of refractive index and polarizability provide useful information for understanding the photoelastic behaviour, frequency dependence of photoelastic constants and optical performance of high power LASER beams. From the view point of theoretical knowledge, the calculation of strain polarizability parameter and then the comparison with experimental data makes a critical test of existing theories of electronic polarizabilities. For alkali halides the situation has been complicated by

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development of new concepts of polarizabilities. Values of electronic polarizabilities changed significantly when the ions are transported into crystalline state from free state. For explaining these changes in polarizabilities several models with different physical origins have been developed. The first and oldest one is due to Fajan and Joos according to which the electronic polarizabilities of cations increase and those of anions decrease in going from free state to a crystalline state because of electronic potential which is negative at the cation site and positive at anion site. This causes the loosening of cations and tightening of anions due to the effect of crystal potential. Pentiades and Wemple have considered a different model, which considers that transitions from the anions to conduction band make the dominant contribution to crystal polarizability. The corresponding transitions from cation are considerably higher in energy such that they are considered to contribute significantly to crystal polarizability. However, this picture suggesting the cation polarizabilities to be almost zero is not consistent with traditional work and also contrary to the evidence based on analysis of reflectance spectra for ionic crystals. Coker has developed another model for electronic polarizabilities by making a careful analysis of experimental data on electron density measurements, reflectance spectra and reflection data. According to Coker's model the electronic polarizabilities of cation remain unchanged in crystals relative to Free State whereas the anion polarizabilities in crystals are reduced significantly. Such changes in polarizabilities are due to neighbouring ions in terms of model developed by Wilson and Curtis and extended by Cover. This model offers a simple approach for studying photoelasticity of ionic crystals such as alkali halides. However, it was not possible to obtain a quantitative good agreement between theory and experiment. This calculated values of electronic strain polarizability parameter for alkali halides crystals turned out to be significantly different from the corresponding experimental values.

In the present analysis, we use the modified form of additive rule as proposed by Raghurama and Narayan for crystalline state electronic polarizability parameter and volume derivative of refractive index are determined assuming that anion polarizability changes significantly in going from Free State to crystalline state while cation polarizability remains unchanged. The use has been made to five different models due to

- i) Yamashita and Kurosawa (YK)
- ii) Dick and Overhauser
- iii) Hanlon and Lawsor
- iv) Aggarwal and Szigeti
- v) Wilson, Curtis and Coker along with three different sets of Free State polarizabilities. The refractive index of crystal depends on the volume on density and polarizability through the Lorentz-Lorentz relation,

$$\frac{n^2 - 1}{n^2 + 2} = \frac{4 \pi \alpha}{3V}$$

Where  $\alpha$  and  $V$  are the electronic polarizability and volume per ion pair respectively. The pressure or volume dependence of  $n$  is related to photoelastic behaviour of crystals. Burstein and Smith found that the experimental values of Volume or density dependence of refractive index can be explained only if one takes into account the variation of polarizability with change in volume. The volume derivatives of refractive index calculated by assuming that the polarizability does not change with volume were found to deviate significantly from the corresponding experimental values. By making a comparison of



calculated and experimental values of dielectric constant it has been that polarizabilities obtained by Raghurama and Narayan produce the best agreement with experimental data. Raghurama and Naryan used the modified form of additivity rule as given below,

$$\alpha = \alpha_+ + (r/l)^n \alpha_-$$

Where  $(r/l)^n = k$  and  $\alpha_+$  and  $\alpha_-$  are the electronic polarizabilities of cation and anion respectively,  $n$  is a arbitrary constant which is 0.26 for alkali halides and  $l$  is normalization length equal to  $3 \text{ \AA}^2$ . The electronic polarizabilities of ions changes when they are transported into crystal from Free State. Numerous models have been developed to explain these changes in polarizabilities. Similar changes in polarizabilities are expected when the volume or density of crystal changes. Thus we can extend the use of various models of electronic polarizabilities for calculating the strain polarizabilities and volume derivatives of refractive index.

#### Conclusion:

The photoelastic behaviour, i.e., volume derivatives of electronic dielectric constant can also be studied by using theoretical method. We make use of equation to calculate  $R/C$  ( $dc/dR$ ) to calculate photoelastic constants. It has been suggested that for highly ionic crystals such as alkali halides, value is zero. The first order strain derivatives can be evaluated for alkali halides are in good agreement with experiment. This serves to support the approach used. Due to lack of experimental data, the second order derivatives is calculated from quadratic electro-optic coefficients can be related to theoretical results. The correlation between photoelastic effect and ionic radii has been discussed in terms of different theoretical models. In calculation of bond orbital method has been extended by presence of term involving the relative cation to anion size difference. This term is not inconsequential is an evolution of refractive index itself and become more important as ionicity of crystal increases.

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# Solar Cell – A Future Prospective

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## Abstract

A solar cell is an electrical device that converts the energy of light directly into electricity by photovoltaic effect. It is a form of photoelectric cell whose electrical characteristics, such as current, voltage or resistance vary when exposed to light. Individual solar cell devices can be combined to form modules known as solar panels. Solar cells are used as photo detector, detecting light or electromagnetic radiation near visible range, measuring light intensity. The operation of photovoltaic cell requires three basic attributes.

Absorption of light, generating electron-hole pairs.

Separation of charge carriers of opposite type.

Separate extraction of those carriers to external circuit multiple solar cells in an integrated group, all oriented in one plane, constitute a solar panel. Solar cells are usually connected in series, creating additive voltage. Connecting cells in parallel yields a high current. Most commonly, this is a solution processed hybrid organic-inorganic tin or lead halide based material. Past few years in solar industry have been a race to the top in terms of solar cell efficiency. A number of achievements by various panel manufacturers have brought us to today's current record for solar panel efficiency.

Solar cells, popularly called as PV cells is the source of electric energy. When these solar cells are placed in sunlight, electrons flows from one terminal to another. In this way electricity is produced. Few decades before, this field of technology comes into existence as an experimental issue when scientists were trying to find new sources of renewable energy. Now, solar cells are most useful source of renewable energy. With the use of solar technique, small businessman are now generating electricity personally at much lesser rates. Now, international energy agency has full faith that upto 2050, solar cell will be the major source of electricity in this world. Till now, solar energy faced a huge competition with wind energy and water energy as a future source of renewable energy. Solar energy contributes very less in energy generation till now. But in past few years, solar energy develops as most important renewable sources of energy. With the increasing demand of solar electricity generator in whole world, solar energy generation reaches upto 100 gigawatt.

There is a considerable progress regarding minimizing the cost of solar electricity in the solar industry. In many parts of this earth, now there is competition between the cost of electricity between solar and grid electricity. Because there is less need of basic infrastructure for solar electricity, so it is also any easy option for electricity where traditional methods fails to provide electricity. Normally, when people are asked to imagine about solar panels, then they imagine about large, dark blue, silicon based panels which can be seen on the top of roof in domestic areas normally. Now development of technique related to photovoltaic cell increases the possibility of solar panel. Elastic solar panels are of less weight because they do not contain heavy sheet of glass and metal frame. Due to this reason, the establishment and transport cost of solar panel reduces to a large extent.

## Types of solar cells

Now, solar cells of fourth generation are available. According to need, different type of solar cells are used.

### i) First Generation (1G) solar cell

Traditionally, thick crystalline film is used in PV technique made up of silicon. This type of solar cells has high efficiency but a high cost too. This type of solar cells are called first generation solar cell. Due to their prime qualities, they are present in large amount in business market. Primarily, these cells are made up of crystalline silicon wafar.

### ii) Second generation solar cell (2G)

Second generation solar cell is developed with the use of thin film technique to reduce the cost of solar panel. In this, the aim is to reduce the quantity and quality of material used so that cost of preparation of solar panel reduces, considerably. But there is a challenge to increase the absorption in thin films. For this, PV layers of reduced thickness is used. This 2 G thin film technique is based on PV materials developed during the progress of 1G PV technique. This is developed to include the material like amorphous or polycrystalline silicon, CIGS and CDTE. With the development of 2 G PV family, it is said that the cost of generation of solar cell reduces as compared to thick first generation solar cell, but the performance of second generation solar cell is poor as compared to first generation solar cell. So, there was a challenge to increase efficiency at less cost. In this, thin film chemical deposition technique and thermal



crystallization technique are used at proper places. Due to use of amorphous materials, the decrease in active volume is compensated with an internal layer PIN technique. These are mixed with doped material to keep the carriers produced due to light in the region. The main factor working in favour of second generation PV cell is its low cost per watt but to increase efficiency, the increase of surface area of solar cell is main debatable question. This increase the possibility of development of third generation solar cell in which nanocrystalline film, PV based active quantum dots, Tandem or stacked multi-layer inorganic based made 3-5 material like GAAS/GE/GAINP2 or Hot carrier cell is developed. The main aim of these are to reduce the cost of second generation solar cell with high performance. These cells are known as "Plasma enhanced chemical vapour deposition (PECVD)". In this generation, there are four types of solar cells in which amorphous silicon cells are also included. These are deposited in big compartments with the help of PECVD. The band gap is approximately 1.7 eV. Poly crystalline silicon is made up of particles of pure silicon.

This design works much better than previous design due to its conductivity. They can be used in large amount. Cadmium telluride cell are made with Cadmium and tellurium in Zinc cubic crystal structure. This material is cheap as compared to silicon but its efficiency is less as compared to silicon. Cell of alloy of copper indium gallium selenide are deposited on the surface of glass or stainless steel. This is a difficult model. Its band gap is about 1.38eV.

### iii) Third generation solar cell (3G)

After this, a real competition starts between material to design on nano scale and microscopic areas. First time, full concentration was given on techniques of charge and energy conservation techniques. The way found out to store charge and in this way the consumption of energy from solar spectrum increased. It is called third generation technique due to low cost and high optical absorption with the start of photo voltaic charters in organic materials. Another materials which makes third generation technique more effective are di or semiconductor sensitive solar cells. Third generation cells got right success but some improvement was also needed to remain in competition with previous generation regarding cost per watt. This generation is very much different from previous generation because nanoscale semiconductors are used in this generation. Different type of solar cells came in this generation for example- nano crystal solar cell, photo electrochemical cell, Di-sensitive hybrid solar cell and polymer solar cell. Nano crystal solar cells are based on coating of silicon substrate on Nano crystal. A thin layer of nano crystal is used with this. This thin layer is deposited with help of spin coating technique. In this list, photo electrochemical cell was in second position and in this semiconducting photo anode was used. This works well with electron polymer solar cell was the last invention of this generation. Its weight was less, cost less and disposable on atomic level. Its negative effect on environment was very less. The cost of third generation solar cell is very less as compared to first and second generation solar cells. These crystalline and poly crystalline based solar cells are responsible for generation of solar electricity upto 90%

### Fourth generation (4G) solar cells

In fourth generation, photovoltaic technology, low cost thin film polymer and new inorganic nano materials are used. The aim of this is to improve upto electronic qualities of low cost thin film photovoltaic materials. To increase the energy production with maintaining low cost some inorganic components are involved with the help of which charge is divided and flows in photovoltaic cells. Previously brought mesoscopic solar cells when mixed with inorganic component (commonly titanium), then it is called fourth generation technique. This inorganic components is necessary for the efficiency of solar cell. Till now, maximum efficient polymer solar cells are made from solid heterogeneous junction structure. These fourth generation solar cells are such hybrid which are low cost and have properties of ductility of conducting polymer film. Its nano structure (inorganic material) makes is stable for life time. This fusion of inorganic technique in organic improves the transfer of solar energy into electricity. The efficiency of solar cell in this generation is more as compared to third generation at low cost. The material for new generation solar cells are made originally on nano scale. They are made for maximum absorption of solar radiations and for improving efficiency of electricity generation. It is supposed that this fourth generation solar cells are the future technology for photovoltaic energy sources. From this generation, most efficient solar cell are made for human requirement and they are hybrid nano crystal cells. To prepare, these cells, a layer is made from mixing polymer and nano particles. This layer is useful for high quality flow of charges and current.

### Solar cells of Next generation

Till now, maximum solar cells are made from inorganic semiconductors which is mainly silicon. But they are not energy efficient as compared to organic semiconductor. In new technique of next generation solar cells, both organic and inorganic solar cells are made. In silicon solar cell, one photon of light emits only one electron, but in new material, same amount of light is emitted (mainly present in green leaves naturally) but due to emission of two electrons the energy efficiency becomes double. This improves the energy efficiency. This cannot be possible with traditional inorganic semiconductor. This technology is the way to hybrid solar cells. The solar cells of next generation will be highly useful. For



this, nanotube structure is highly responsible. In this tube electric charge upto 100 million times can flows. Now, silicon is used as solar light absorber these days scientists discovers carbon nano tubes to improve the efficiency of solar cells. Scientists are successful in fixing the carbon nano tubes in polymer matrix on nano scale. By this technique, we can set carbon nano tubes in complex networks by decreasing the essential cost of nano tubes. Nano tubes are used in very less quantity. The solar cell made by this solution is highly efficient. This means that no costly equipment is used for this. Therefore, there is an extraordinary efficiency of flow of charge in Nano network design with traditional speed as compared to carbon nano tubes. Photovoltaic cell depends upon light for production of electricity. So, the production of electricity is very less in bad weather conditions. Researches are trying to make solar cells which works in all weather conditions. In rainy season, the dust from solar panel is washed away, so there efficiency can be increased. The salt particles are present in rain drops which divides in positive and negative ions. With this, chemical science researches changes the graphine to thick carbon sheet. The electrons of graphine attracts the positive charge ions, with the result of which positive and negative charge layer separates. These layers helps to store energy like a capacitor. By keeping these points in mind, scientists put graphine in a dye sensitive solar cells. This is a low cost thin film solar cell which is placed on transparent indium background with tin oxide and plastic. The efficiency of production of solar electricity from solar energy obtained from these cells is about 6.53 percent. So, the production of electricity for a long duration in adverse weather conditions can be done in near future.

### CONCLUSION

Solar power generation has been developed as one of the most demanding renewable source of electricity. It has several advantages compared to other forms of energy like fossils fuels and petroleum deposits. It is an alternative which is promising and consistent to meet the high energy demands. Though the methods of utilizing solar energy are simple, yet need an efficient and durable solar material. Technology based on nano crystal QD of semiconductors based solar cell can theoretically convert more than sixty percent of whole solar spectrum into electric power. The polymer based solar cells are also a viable option. However, their degradation with time is a serious concern. There are various challenges for this industry, including lowering the cost of production, public awareness and best infrastructure. Solar, energy is the need of the day and research on the solar cell has a promising future worldwide.

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Middle Class Milieu in R. K. Narayan's Novel"The Financial Expert"Sarita Goyal,Asstt. Prof. of English,Vaish College, BhiwaniAbstract

Literature happens only in a milieu determined largely by societal forces, culture and social ideologies, though we cannot ignore the fact that the most immediate setting of a work of literature" is its linguistic and literary tradition, and this tradition in turn is encompassed by a general cultural climate." The milieu of a work of art, novel in particular, focusses attention not only on its social determinates but also on the artistic method by which it is conceived. In a work of fiction, milieu has a role to play, most commonly, a reflective or supporting role. It enhances the nature of the action and the qualities of the characters. Sometimes it may be a means of placing a character in a society. It may generate a climate which plays a significant function in the plot.

R.K. Narayan's characters have been created by his fertile imagination and minute observation of life. Characters are placed in the context of their social milieu, they can't be viewed in isolation. The middle class society in Narayan's novel, "**The Financial Expert**" gets reduced to individuals as individual in the real world is the end – product of the society. Keywords : milieu, cultural climate, middle class, social milieu.

Milieu, in fact, has paramount importance in a novel or a story. In R. K. Narayan's novels, this milieu is determined by the geographical locale and the inner milieu of the character's mind. In his novels, milieu is composed generally of middle-class people. The milieu in the congested localities of Malgudi has a definite impact on the mental make-up of the middle class individuals like, Margayya, the protagonist of the novel, "**The Financial Expert.**"

The internal milieu in Narayan's novels is composed of the typical middle class ideology which is reflected in and by the actions of the imaginary characters. The ideology contains craze for self, power and status in the society, moral duplicity, social respectability and self-consciousness Margayya, the self – centered hero, has lofty ambitions &



materialistic outlook. In order to realize the goals of becoming rich and possessing status and power, he discards the cherished values and norms of the middle class to which he belongs.

Milieu in R.K. Narayan's novel is essential to the presentation and understanding of the characters because there is a close correlation between life and art. The Writer's fictional world is based upon a single small growing town named Malgudi in the south. It is largely made up of the middle class and its norms and values.

The middle class milieu provided consciously by the writer remains in the background but it is significant in illuminating the characters and defining their actions. The middle class enjoys a modicum of economic independence, security and status. But beset with the problems of growing self consciousness, rising expectations and insatiable longing, they find themselves in perpetual struggle to rise higher in the social hierarchy.

The typical middle class milieu consists of craze for pelf, power and position, a hypocritical attitude towards love and sex, a strong urge for domestic peace and harmony<sup>2, 3</sup> and a superficial faith in religious dogmas and rituals. It also lies in maintaining social<sup>4, 5</sup> respectability and honour, personal or familial, by all means. Margayya, in the novel, "**The Financial Expert**", stands for all the persons of the middle class who in his personal endeavour to a rapid social ascent alienates himself, and suffers in the process and becomes miserable and pitiable creature. This simple yet clever man has an inborn faculty for making money multiply. To him, it is money only that matters in his life.

Margayya's journey from rags to riches is the journey of any typical ambitious middle class man, "Every Rupee, Margayya felt, contained in it seed of another rupees and that seed in it another seed and so on and on to infinity" (p. 94) The business of this "**Financial Mystic**" (p. 102) gets collapsed within a few days and he has to declare himself insolvent. The "**Financial Wizard**" (p.7) again becomes a petty money-lender. This fortune wheel moves from the ordinary to the extra-ordinary and to the ordinary again which, in Narayan's fictional world, is a typical middle-class phenomenon. His heroes, push themselves irresistibly towards their motto of social status, wealth, name, fame and power, love and social security and soon and so forth.



The middle class society in Magludi, as we see in the novel, "**The Financial Expert**" is torn between two worlds : One is essentially traditional and the other is relatively modern. The true nature of the relationship of Margayya with his brother is summed up in these lines :

"It was a relationship essentially thriving on a crisis. The moment that the crisis was over, the two families fell apart." (p. 143)

The relationship between Margayya's family and that of his brother's throws light on the fast changing values and norms of the society. Margayya avoids his brother fearing that they may depend on him or demand anything from him.

The relationship of Margayya and his son is also a sort of love hate relationship which also emphasizes on the milieu of middle class. The clash shown between the father and the son is the clash between the old and the new values of the middle class society.

Women characters in "**The Financial Expert**" like other novels of R.K. Narayan, are traditional and fully domesticized. They uphold the middle class tradition of loyalty and duty to husband and caring for their children. (p. 14). whereas Margayya ignores Meenakshi, his wife and scolds her also over petty issues. Middle class women, despite being neglected and exploited, remain docile and submissive. His son Balu's wife, Brinda also shows extreme self-control and reticence over her husband's infidelity.

In the novel, Malgudi is a microcosm of the middle class Indian milieu in turmoil and transition. It presents a world still clings to the old crumbling traditions ; comparison of horoscopes, joint families, parents settled marriages and the propitiation of gods and goddesses. The simple and placid life of an average individual in a middle class family has begun to feel the tremors of the new waves. The western style of living, the opening of cooperative and other banks, the Lawley Extension with its huge bungalows, interest in pornography, intoxicants and women are the stark realities of the town.

In the fast growing materialistic world, non materialistic things lose charm & sanctity. The traditions in the middle class families have begun to be performed as mere formalities. Horoscope matching has proved a hollow convention in the novel. Margayya performs rituals as formalities and sometimes out of fear-another characteristic of the people of middle class.

In the middle class milieu of Narayan's novel, love and romance are pursued just for social upliftment- a means to rise to some extra ordinary position in the society.



In "The Financial Expert", R.K. Narayan has used the language of the middle class people to heighten the effect of the middle class milieu. As he deals with the people of middle class, so he uses plain English. He lends depth and interest even to the bland expressions. His English is austere and pretends no sophistication.

Milieu in Narayan's novels can be the result of a linguistic manipulation. In the first part, the tempo of the narrative is slow. It is as slow as Margayya's financial progress. It gathers momentum after he becomes a financial wizard.

The middle class people are very cautious about the opinions of others. "What will people say?" "What others think?" When Margayya's son Balu fails in S.S.L.C., Examination, he feels ashamed: "How am I to hold up my head in public? What will they think of me? What will they say of my son?" (p. 113) when Margayya has to revert to his petty money lending business, he asks Balu, his son to sit in front of the cooperative Bank under the banyan tree. But Balu replies: "How can I go and sit there? What will people think?" (p. 178) This aspect indicates towards the middle class milieu in the novel. There is no dichotomy between the real middle milieu and the imaginary middle class milieu of Narayan's novel.

The conflict in the milieu remains at the individual level. The ultimate hall-mark of his writing is that the routine of middle-class existence becomes a value system rather than a drab monotony. Novy Kapadia rightly remarks that "The universal and widespread appeal of R.K. Narayan is due to the predominant middle class milieu in all his novels."<sup>2</sup> But it can be said that he has pressed highly upon the inner milieu rather than the outer milieu or the physical world, the Malgudi world. The inner milieu has its correlate in the outer milieu in the form of middle class tendencies as they shape the destinies of the individuals moving from experience to experience. To quote William Walsh: "Narayan writes chiefly about the Indian middle class because he is a member of it, and it is the class he understands best."<sup>3</sup> His characters display independent attitudes and critical existence but there is always an intrinsic tension between this and all pervading shackles of tradition and custom.

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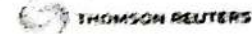
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**Revelation of Human Bonds in Anita Desai's Novel The Zig Zag Way.**

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The novel *The Zigzag Way* belongs to the author's mature phase. It was published in 2004. This is her latest novel, and it differs from her earlier novels in that, the novel is set in Mexico. Anita Desai presents the Mexican locale in her supremely luxuriant prose. The novel blends history, mythology, superstition and sense of mystery. The study seeks to examine the realities of immigration, exploitation, subjugation, slavery, colonization, displacement and a search for space and identity. Anita Desai sets her eyes on a new continent, Mexico, away from India. Anita Desai has abandoned India to write a novel about Mexico. Anita Desai, whose novels are typically set in her native India, brilliantly entertain an atmosphere, a scene, a moment in time but not just the superficial dazzle of a crowded market or a conversation in a hotel bedroom. External meaning of. She writes about the edginess, confusion, sensations that lie beneath.

The *Zigzag Way* is divided into four sections. The first concerns Eric, a young American who follows his girlfriend Em into Mexico. Because she's busy with her research, Eric is left alone most of the time, and ends up leaving Mexico City to travel to the Sierra Madre Oriental, where he hopes to find out more about his family. As he discovered shortly before his trip, his father was actually born in Mexico, and his grandfather was a Cornish miner who immigrated there in the 1910's.

The second section mostly concerns Doria Vera, a woman known as the "Queen of the Sierra." Dona Vera is a renowned expert on the Huichol Indian, and her house, the Hacienda de La Soledad, is a research centre that attracts students and experts from all over the world. However, as we soon find out, not everything about this woman is as it seems.

The third section tells Betty's story. Betty is Eric's grandmother, and as a young woman she immigrates from Cornwall to Mexico to marry Davey and settle in one of the mining communities. As you can imagine, the process of adapting to a new culture and way of living is not exactly easy.

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Finally, in the fourth section, set in the Dia de los Muertos, we return to Eric, and the three previous storylines more or less come together in a ghostly finale.

The study attempts to explore the female characters of *The Zigzag Way* and bring out a clear-cut perception of their feminine strength as depicted by the author. Jasbir Jain opines that "Anita Desai's novels are about the preoccupations of a woman in a male world, and in some measure they can be viewed as novels of domesticity as it is defined in a patriarchal society."

But the study shows that the present novel *The Zigzag Way* presents women characters who may not be said to accede to the above statement. The female characters presented here are extremely tenacious and strong. Each one is enumerated in the present study. It is a well-known fact that women had in past remained dependent on men. Men were considered the sole bread winners. But in modern days the proportion of women who are getting educated has increased, and therefore, the employment opportunities have also increased. One can also find that women-headed households are on the rise, where women meet most financial needs of the household.

Emily Hatter, called Em in the novel illustrated the amount of wide-spread change that now characterize women's lives. Such changes have created a deep need in women for self-recognition. An affluent environment also has ushered in great freedom. Em knows that she is an independent self. Em is presented as a strong woman and she is in control of her life. She is academically minded and she always moves with a preoccupied air about her. The soberness in her sets her apart from the other girls whom Eric has encountered. Em is a sincere girl and she has varied interests. Em possesses an aptitude of devoting her undivided attention to the subject on hand. This is her strong point and it helps Eric to brace up his own vacillating and indeterminate nature. She is an apt support for the different Eric. Em exudes a warm, sweet, self-confident and poised personality. Em is a strong-willed, and determined personality, quite unlike the female protagonists of Anita Desai's initial novels.

Em embarks on a study tour to Mexico. She has exhausted the resources for her research at Boston. Therefore, she wishes to carry her research study into the field. Eric finds himself accompanying her. The author depicts Eric as a person who does not possess an independent

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identity. He depends on Em for support. The novel reveals that Eric feels like this “usually it was steady to think of Em....”

There is more than one instance in the text to reveal that Em was the superior of the two. When Eric is assailed by confusion, he feels: “If Em were here, he thought, she would have understood and grasped the whole situation in no time.”

Now Em undertakes a journey to Merida, all by herself, in fulfillment of her research studies. She receives great certainty and confidence from her work. Therefore, she strikes the reader as a wise girl with a deep sense of forethought.

Human experience amply evidences to the fact that when people devote themselves to any worthwhile tasks, it lends a worthiness and meaning to life. The devotion to a reputable mission imparts a sense of service. Dona Vera devotes herself to the education and upliftment of the Huichol Indians, a diminishing tribe. She emerges as a powerfigure. In spite of her foreign identity, Dona succeeds in accumulating power.

Dona Vera undertakes the journey to Mexico through her marriage to Don Roderigo. The novel reveals that she has almost outgrown her prospects at cabaret dancing and such other professions. Dona Vera is an opportunist. She comes forth as a domineering and gritty woman. Although she is a victim of dislocation, wherever she goes, she identifies herself with the culture of the land and empowers herself.

As the plot develops we see several facets of her life. Eric’s efforts to make sense of both Mexico and his family past are counter-pointed with Vera’s story. As Eric furthers his explorations in Mexico, he comes to find out more about the legend of Dona Vera and her escape to Mexico from Nazi Austria with a foreigner. A poor girl in 1930s Vienna, she achieved minor success on the stage, then married Roderigo. He was “large, foolish and fumbling”, but helped her escape from the Austrian capital, where her father had been beaten up by anti-Nazis. In Mexico, Vera is obsessed with the aloof Huichol warriors and is building her life around them – or around an idealized vision of noble savages. Does she help or exploit them? Although she embodies the exploitation of the people and land of Mexico, she pays lip service to their conservation, giving lectures at the Centre for Anthropological and Ethnographic Studies.

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The novel reveals that she is an Austrian exile, a refugee from the II World War. Dona has been exploited as a dancer. This exploitation denotes the realistic aspect of the social malaise of the exploitation of helpless women. But in Mexico she has transformed herself into Queen of Sierra. She has forged a relationship with the Huichol Indian and has exerted herself to protect their culture. She has conscientiously worked hard towards their upliftment. She creates a base for the marketing of their hand-made objects, embroidery and artefacts. Her endemic adaptability to mingle with the tribal Huichol Indian, transforms her into an awe-inspiring personality. Vera possesses a distinct sensitivity towards the needs of the Huichols. The novel reveals that she is not an educated woman. But her mind is singularly receptive to the work regarding tribals that is being accomplished throughout the world.

The novel realistically presents the details of Vera's everyday life, her drudgery in order to work for upliftment of the Huichols. Although the world has moved ahead and has experienced transformation, yet there exist people who remain in blind beliefs and superstitions. Such are the Huichols. Vera redeems the Huichols who have been marginalized by the mining company. But the people around there, treat Vera as a controversial woman.

The novel records the subliminal development of Vera from an ordinary dancer to a woman of great popularity. Vera has given the Huichols the service of a redeemer. In this act, she has gratified her own need for self-esteem. This is due to the fact that she is a migrant in Mexico. Her Hacienda is a centre for studies on the Huichols helps to raise her on a very high pedestal.

But Dona Vera suffers an amount of alienation and detachment from the community. She is uprooted from her own motherland. She has led a wayward life and she is uprooted from moral values as well. Now loneliness assails her. She cultivates eccentricities and thus she lives separately in the hacienda. She can identify herself with the Huichols as they are uprooted individuals like her. Her nightmare reveals that there is a deep void in her heart. She has developed detachment from society as she has not received adequate affection and emotional reinforcement from the individuals she expected. Thus she has developed the peculiarity of hating anybody who comes to her hacienda without the august purpose of studying her Huichol. This unhealthy alienation from

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society leaves Dona Vera sapped of her emotional vitality. She remains an oddity with her own bunch of rules and regulations governing her territory.

However, the stereotypical role of the weak or dependent woman is totally absent in the present novel. Here, the woman is the repository of all positive values. Another such woman is Eric's mother. She is bred in the fishing village of Maine and is the sole daughter in a family of sons. The novel reveals that, "... she made it evident that while she cooked, cleaned and washed up for the others, she had a mind of her own, separate and intact." Her assertiveness and self-confidence can be witnessed in her insistence on Eric's education." She chooses to send Eric away to school. Eric, the Harvard scholar is recognized as an oddity in a lineage of vigorous Maine fishermen. Eric's mother uproots him from such a milieu and plants him in a boarding school for education. She exudes great pluck when she chooses to be different in two instances. She had insisted on marrying the English stranger who had arrived in their village; and when she sent Eric way to school, "The small, progressive school..." Eric's mother indicates an extraordinary perseverance and strength, a superb intelligence and vigilance, when she questions Em about all her academic pursuits. This behaviour depicts an unusual cognizance of the world outside her domestic periphery.

Betty Jennings is another lady of grit and determination. She struggles against all odds and yet does not give up. Through her mundane existence, Betty expands and grows in resilience. She is in search of her individuality which is reflected in her love for freedom.

Betty is an educated girl; she has attended the Chapel school in Delabole, Cornwall. She is a dutiful and illustrious girl. She is imbued with a fertile sense of imagination and sensibility. Her letters written back home to her sisters and father are evidence to the fact that she is fastidious. She spurns David's attempt at curbing her freedom. The novel reveals a vestige of male domination in David's irritation at Betty's independent ways. Betty expresses her desire to be of some help to the poor classes. She communicates her philanthropic tendency in her awareness of the potter's struggle for livelihood. Betty experiences no uneasiness when she buys his cheap earthen ware. David's snobbish response does not deter her.





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The uniform acquisition of identity and individuality through various means as pointed above surpasses any discriminations. These female characters possess a self-appraisal of their status as individuals. These characters are not neurotic, but they are in conscious control of their lives. The Zigzag Way presents emancipated female characters. The patriarchal forces or any other force cannot persecute them. They defy such forces. These women would like to redefine their identities and they struggle when challenged. The male characters are not evil. But their indirect attempts at curbing the women render them powerless. This oblique oppression is manifested in their incapacity to comprehend their women's search for identity. The idealistic tendencies of these women pose a challenge to their men. The author employs the male characters- Eric, Don Roderigo and David to ignite the women's urge to move beyond themselves. In Em's it is her academic pursuit, with Dona Vera, it is her service to the Huichol and with Betty, it is her drive towards the oppressed class. The picture portrayed is not of weakness or neuroticism, but that of tenacity and a power to nourish others around them.

It is Betty's story that produces the book's real momentum. Like both Dofia Vera and her grandson many decades later, she is entranced by the spirit of Mexico. Betty's story of adjustment to her new life in this strange land is so full of innocence, wonder, discovery and eventually drama and sadness that it could have been a much longer novel.

The study of the novel reveals the capabilities of the woman towards suffering and adaptability. It also examines the woman's power to transmute her surrounding in such a way that it serves as a site for enhancing herself and her confidence. The fact emerges from the study that women contain more prodigality and depth than men. Patriarchy which symbolizes male authority in the family and society, at times, tends to become ineffective. In *The Zigzag Way*, the members who represent patriarchy become puppets at the mercy of the women. This is seen both in Eric and some extent in Don Roderigo. Male chauvinism seems to be utterly destroyed. Thus the researcher has presented the realistic study of the women characters in the novel.

Another aspect of realism studied in *The Zigzag Way* is the phenomenon of the Huichol Indian. Mexico had been economically exploited by the Spanish. The following lines from Carl

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Sartorius' book, *Mexico and Mexicans*, 1959, have been quoted by the author: "When at the beginning of the sixteenth century the Spaniard landed in Mexico, they first met with the native of Sempollan, not far from the sea... the chiefs wore silver and gold ornaments that attracted the rapacious glances of the white adventures. Their first question was 'Whence comes this?' The natives pointed to the west. When, soon after, the ambassadors of Montezuma brought rich presents of the precious metals adorned with emeralds, in order to induce the unbidden guests to turn back, they were confirmed in their opinion that there were literally golden mountains in the interior, and the cry was 'Forwards' !"

These lines reveal that the ancient and immaculate glory that had flourished on mining, was seized by the Spanish encounter. The Mexicans had tried to understand these alien invaders. They strove to satisfy them with precious gifts, but the invaders were bent upon establishing their foothold. Thus the Spanish hegemony had imposed the Spanish language upon the land. With the war of independence, the struggle against this foreign domination had come to an end.

The Spanish invaders dislodged these native dwellers and cast them out of their land. Therefore, the Huichols may be viewed as a marginalized group. The mining industry had exploited and destroyed the land by continuous mining, thereby they had destroyed everything that the natives had cherished as divine. They are the primitive population of that place. They, as a tribe have been silenced and kept ignorant by the domineering Spanish, that is represented by the mining industry. Throughout the history of the world, there have been many instances of enslavement and torture of different using them as labourers or as beasts of burden. This kind of exploitation of the Huichols is very touching. The destruction of these people and their culture has been literally disregarded. It is natural that other forms of destruction claim attention. The fate of these Mexican aboriginals is miserable. They have experienced exploitation and injustice from the mining industries. The Huichols had cultivated occult practices and superstitions. As elsewhere, they were in a state of physical and psychological vulnerability.

Oppressive conditions have left devastating effects on their personality. They experience fear and insecurity at meeting strangers. This is witnessed in their movements. This is due to the

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domineering oppression to which they are subjected since a long time. This insecurity and fear has become second nature to them. The Huichols who are present at the hacienda are shy and withdrawn. They speak their own native language. Their depiction is very realistic. They do not even speak broken English. The oppression has also caused in them a suspended sense of individuality. They are unable to think or reason anything. They are pathetically disintegrated. They are innocent and harmless. There was a state of powerlessness and helplessness. They are torn from their home and culture. Their religious beliefs and practices are also snatched away from them. As Dona Vera accuses, the miners sought to dehumanize and enslave these people. They also erased their traditions and culture. Therefore, these people experience a sense of rejection, low self-esteem and inferiority complex.

At the same time, this diminishing tribe has not relinquished its culture and traditions. They led a community life, as it gave them a sense of security. Harmony and cohesiveness was maintained. Brotherhood and social affinity was practiced, as they left a deep need to hold on together. The Huichol Indians felt it essential to understand the universe that was around them. Their existence was closely linked to the elements of nature. Perhaps their survival depended upon it. The peyote cactus held great significance for them. Therefore, they trudged miles together in search of this magic mushroom. Their religion was related to the peyote cactus and it constituted an important aspect of life for them. Their life was permeated with such religious rites and customs. The Huichol also upheld a strong conviction in spiritual upliftment. It is true that only spiritual upliftment can to some extent minimize the damage done to their culture. Thus, the Huichols are seen as a group who cling to their religious traditions. They asserted their faith by traveling long distances on foot in search of the peyote cactus. The author portrays the festival of the dead, which happened to be a ritual associated with the past. The festival presents a realistic presentation of the essence of Mexican life.

The Zigzag Way denotes a total departure from the passive role of women with a limited space and influence on the outer world, to a very positive role. So, with the presentation of female characters in such a positive way, the reality of the modern society can be evidenced. The present





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study finds that the depiction is very much in accordance with the present reality. The present-day reality reveals that women are dynamic. They are conspicuous and invincible. They have emerged out of their domestic realm. The study reveals that the reality of woman as the fountain of strength and resilience is firmly rooted and established. Thus, the study finds that The Zigzag Way spurns the stereotyped depiction of the woman as docile and dependent.

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## **Hemodynamics indicators of pulsatile unsteady flow of blood through stenosed artery filled with porous medium under the influence of magnetic field and slip velocity**

**Dr. Mahender Singh\***

**Dr. Seema Bansal\*\***

**Sanjay Kumar\*\*\***

**Abstract:** The present paper deals with the pulsatile flow of blood through a stenosed artery under the influence of static magnetic field and slip velocity. Numerical solution is found by Frobenius method. The effect of non-dimensional parameters on hemodynamics indicators are discussed through graphs.

**Keywords:** Newtonian fluid, Stenosed artery, Slip velocity, Frobenius method.

**Introduction:** Many researchers Mazumdar(1992), Halder and Ghosh(1994), Layek and Mukhopadhyay (2008), Sharma and Bansal (2012, 2014) studied the blood flow through stenosed artery under the various physiological conditions. Sanyal *et al.* (2007) studied the characteristic of blood flow in a rigid inclined circular tube with periodic body acceleration under the influence of a uniform magnetic field and conclude that velocity increases with acceleration due to gravity, inclination and womersley parameter and decreases with magnetic number. Mwanthi et al. (2017) considered the unsteady, incompressible, viscous and Newtonian blood flow through an inclined circular tube under MHD effects and concluded that with the increase of Hartmann number leads to decrease the axial velocity of the blood. incompressible, viscous and Newtonian. Singh et al. (2018) dealt with the velocity profiles of blood flow through stenosed artery under magnetic effects and slip condition. El-Shahed (2003) studied pulsatile flow of blood through stenosed porous medium in the presence of periodic body acceleration.

In the present paper we considered the blood flow through a narrow stenosed artery filled with porous medium subject to a slip velocity at arterial wall. Effects of various non-dimensional parameters on hemodynamic indicators are discussed and shown by graphs.

### **Formulation of Problem**

We dealt with axially symmetrical cylindrical tube (stenosed artery) with axis coinciding with z-axis. Blood is taken as Newtonian, incompressible and viscous. A transverse magnetic field is applied and a slip velocity is consider at arterial wall. The basic equations of motion in the cylindrical co-ordinate system( $r, \theta, z$ ) are given by

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$$\rho \frac{\partial u}{\partial T} = -\frac{\partial p}{\partial z} + \frac{1}{r} \frac{\partial}{\partial r} \left( \mu r \frac{\partial u}{\partial r} \right) - \sigma B_0^2 u - \frac{\mu}{K} u \quad (1)$$

Where, u is the axial velocity of blood, p is the pressure of blood, ρ is the density of blood. The viscosity of blood is Hematocrit concentration dependent given by Einstein as  $\mu = \mu_0 [1 + \beta h(r)]$

where, μ<sub>0</sub> is coefficient of viscosity of plasma, β is a constant and h(r) is the hematocrit concentration which is govern by the equation

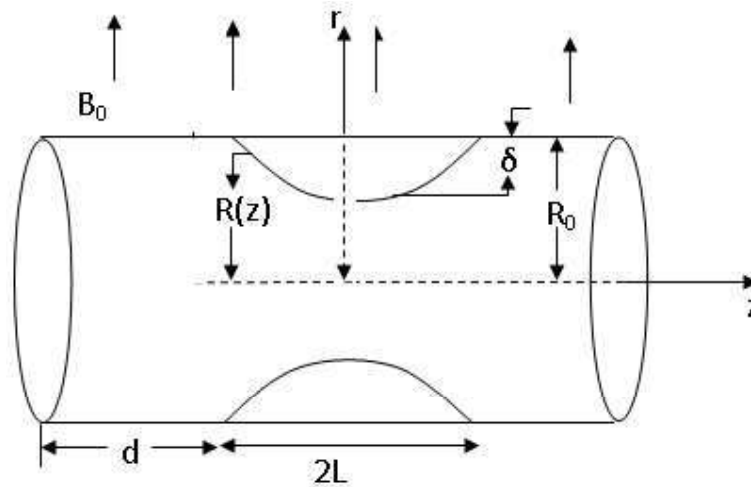
$$h(r) = H_m \left[ 1 - \left( \frac{r}{R_0} \right)^n \right] \quad (2)$$

Here, H<sub>m</sub> is maximum hematocrit concentration at the center of tube. The shape of the stenosis is shown in Figure 1. and is determined as

$$R(z) = \begin{cases} R_0 - \frac{\delta}{2} \left( 1 + \cos \frac{\pi z}{L} \right) & -L \leq z < L \\ R_0 & \text{otherwise} \end{cases} \quad (3)$$

Where, R<sub>0</sub> is the radius of normal tube, 2L is the length of stenosis and δ is the maximum thickness of the stenosis

**Geometry of the Model**



**Figure 1**

The boundary conditions are

$$\begin{aligned} \frac{du}{dr} &= 0 & r &= 0 \\ u &= u_s & r &= R(z) \end{aligned} \quad (4)$$

Where, -σB<sub>0</sub><sup>2</sup>u is the magnetohydrodynamic force.

Putting the values of v, μ and h(r) in the equation and using the length and time scaling parameter, the governing equation reduced to

$$\frac{\rho R_0^2}{t_0 \mu_0} \frac{\partial u}{\partial t} = -\frac{R_0^2}{\mu_0} \frac{\partial p}{\partial z} + \frac{1}{y} \frac{\partial}{\partial y} \left[ (a - ky^n) y \frac{\partial u}{\partial y} \right] - \frac{R_0^2 \sigma B_0^2 u}{\mu_0} - \frac{(a - ky^n)}{Da^2} u \tag{5}$$

Where,  $t = \frac{T}{t_0}$ ,  $y = \frac{r}{R_0}$ ,  $\beta H_m = k$ ,  $a = 1 + k$

Taking  $u(y, t) = U(y) e^{i\omega t}$  (6)

and  $-\frac{R_0^2}{\mu_0} \frac{\partial p}{\partial z} = c e^{i\omega t}$

where,  $c$  is the amplitude of the pulsatile flow.

Then the equation reduced to

$$\frac{1}{y} \frac{d}{dy} \left[ (a - ky^n) y \frac{dU}{dy} \right] - (\alpha^2 i + H^2 + \frac{a}{Da^2}) U + \frac{ky^n}{Da^2} U = -c \tag{7}$$

With  $\frac{R_0^2 \sigma B_0^2}{\mu_0} = H^2$ ,  $\frac{K}{R_0^2} = Da^2$ ,  $\alpha^2 = \frac{\rho R_0^2 \omega}{t_0 \mu_0}$

The corresponding boundary conditions (10) and (11) are transformed to

$$\begin{aligned} \frac{dU}{dy} &= 0 & y &= 0 \\ U &= u_s & y &= \frac{R(z)}{R_0} \end{aligned} \tag{8}$$

**Method Of Solution**

**Calculation for Hemodynamics parameters**

We have used Frobenius method for the solution of differential equation (7) under the boundary condition (8) and is given by [16]

$$u = \frac{\left( \alpha^2 i + \frac{1}{Da^2} \right) \left( \frac{c}{4a} \sum_{m=0}^{\infty} \lambda_m \left( \frac{R(z)}{R_0} \right)^{m+2} + u_s \sum_{m=0}^{\infty} A_m y^m - \frac{c}{4a} \sum_{m=0}^{\infty} A_m \left( \frac{R}{R_0} \right)^m \sum_{m=0}^{\infty} \lambda_m y^{m+2} \right)}{c_0 \sum_{m=0}^{\infty} A_m \left( \frac{R}{R_0} \right)^m \left( 1 - \frac{I_0 \left( \sqrt{\alpha^2 i + \frac{1}{Da^2}} y \right)}{I_0 \left( \sqrt{\alpha^2 i + \frac{1}{Da^2}} \right)} \right)} \tag{9}$$

**Calculation for Hemodynamic Indicator Volumetric Flow Rate (Q)**

The volumetric flow rate  $Q$  of the fluid in the stenotic region is given by

$$Q = 2\pi R_0 \int_0^{R/R_0} u y dy$$

Let  $Q_0$  denotes the flow rate of plasma fluid in unstricted tube ( $M=0$  and  $H=0$ ) which is given by



$$Q_0 = -\frac{\pi R_0^3}{8\mu_0} \left( \frac{\partial p}{\partial z} \right)_0$$

where,  $\left( \frac{\partial p}{\partial z} \right)_0$  being the pressure gradient of the fluid in unstricted uniform tube.

Thus non-dimensional flow rate  $Q = \frac{Q}{Q_0}$  is given by

$$Q = \frac{4 \frac{\partial p}{\partial z} \sum_{m=0}^{\infty} \left( \lambda_m \left( \frac{R}{R_0} \right)^{m+2} + 4au_s \right) \sum_{m=0}^{\infty} \frac{A_m}{m+2} \left( \frac{R}{R_0} \right)^{m+2} - \sum_{m=0}^{\infty} A_m \left( \frac{R}{R_0} \right)^m \sum_{m=0}^{\infty} \frac{\lambda_m}{m+4} \left( \frac{R}{R_0} \right)^{m+4}}{a \left( \frac{\partial p}{\partial z} \right)_0 \sum_{m=0}^{\infty} A_m \left( \frac{R}{R_0} \right)^m}$$

(10)

The expression for the relative pressure gradient can be obtained by

$$P = \left( \frac{\partial p}{\partial z} \right) / \left( \frac{\partial p}{\partial z} \right)_0$$

$$P = \frac{a Q}{4 Q_0} \frac{\sum_{m=0}^{\infty} A_m \left( \frac{R}{R_0} \right)^m}{\sum_{m=0}^{\infty} \lambda_m \left( \frac{R}{R_0} \right)^{m+2} \sum_{m=0}^{\infty} \frac{A_m}{m+2} \left( \frac{R}{R_0} \right)^m - \sum_{m=0}^{\infty} A_m \left( \frac{R}{R_0} \right)^m \sum_{m=0}^{\infty} \frac{\lambda_m}{m+4} \left( \frac{R}{R_0} \right)^{m+4}}$$

### Calculation for Hemodynamic Indicator Wall Shear Stress (WSS)

The shear stress at the surface of stenosis is described by

$$\tau_s = - \left[ \mu(r) \frac{du}{dr} \right]_{r=R}$$

$$= -\mu_0 \left[ a - k \left( \frac{R}{R_0} \right)^n \right] \left[ \frac{\sum \left( \lambda_m \left( \frac{R}{R_0} \right) + 4au_s \right)^{m+2} \sum (m+1) A_{m+1} \left( \frac{R}{R_0} \right)^m}{\sum A_m \left( \frac{R}{R_0} \right)^m} - \sum A_m \left( \frac{R}{R_0} \right)^m \sum (m+3) \lambda_{m+1} \left( \frac{R}{R_0} \right)^{m+2} \right]$$

Also, if  $\tau_N$  is the shear stress at the wall in the absence of stenosis, then

$$\tau_N = \frac{\mu_0 c_0 e^{i\omega t}}{R_0} \frac{I_1 \left( \sqrt{\alpha^2 i + \frac{1}{Da^2}} y \right)}{I_0 \left( \sqrt{\alpha^2 i + \frac{1}{Da^2}} \right)}$$

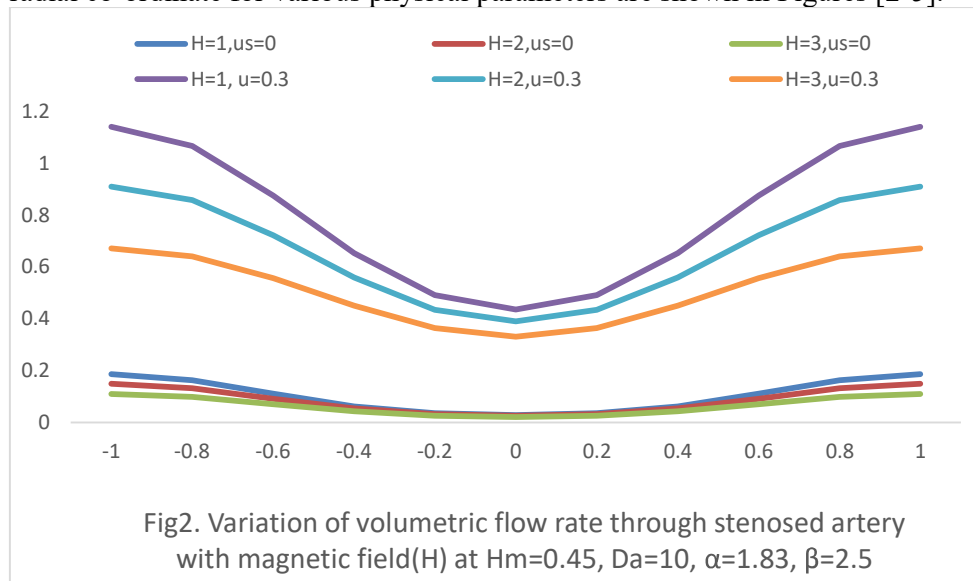
The non-dimensional form of shear stress is now obtained as

$$\tau = \frac{\tau_s}{\tau_N}$$

$$= \frac{c I_0 \left( \sqrt{\alpha^2 i + \frac{1}{Da^2}} \right)}{4ac_0 I_1 \left( \sqrt{\alpha^2 i + \frac{1}{Da^2}} y \right)} \left[ a - k \left( \frac{R}{R_0} \right)^n \right] \left[ \frac{\sum \left( \lambda_m \left( \frac{R}{R_0} \right) + 4au_s \right)^{m+2} \sum (m+1) A_{m+1} \left( \frac{R}{R_0} \right)^m}{\sum A_m \left( \frac{R}{R_0} \right)^m} - \sum A_m \left( \frac{R}{R_0} \right)^m \sum (m+3) \lambda_{m+1} \left( \frac{R}{R_0} \right)^{m+2} \right]$$

data are

**Results and Discussion:** The expression of volumetric flow rate is found and the plotted for different values of Hartmann number (H), Darcy number (Da), Wormersley number ( $\alpha$ ) and Hematocrit concentration(Hm). The profiles of volumetric flow rate versus radial co-ordinate for various physical parameters are shown in Figures [2-5].



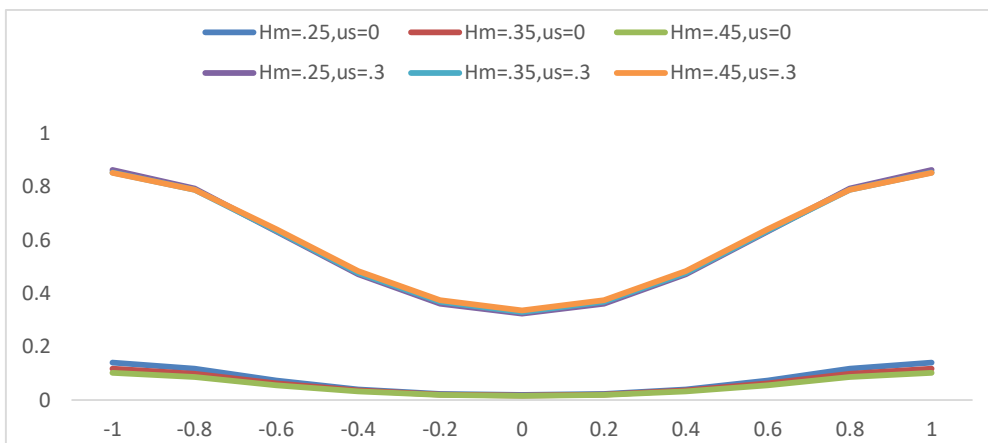


Fig3. Variation of volumetric flow rate in stenosed region with Hematocrit(Hm) at  $H=5, Da=10, p=0.5, \alpha=1.83, \beta=2.5$

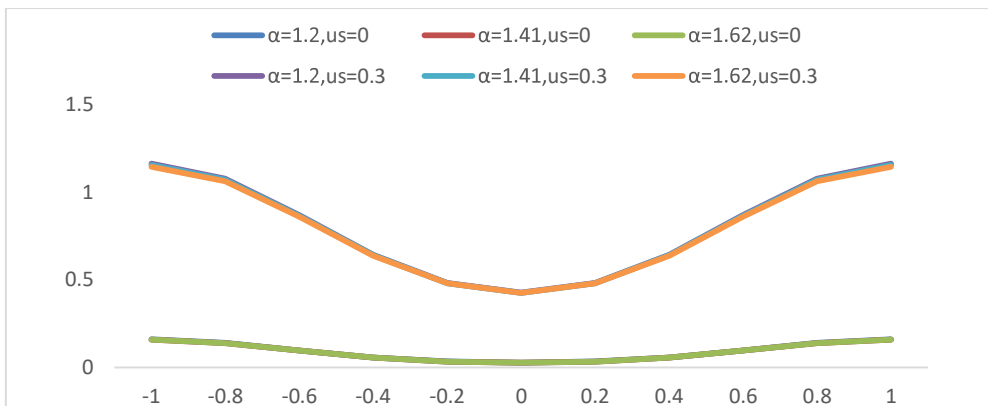
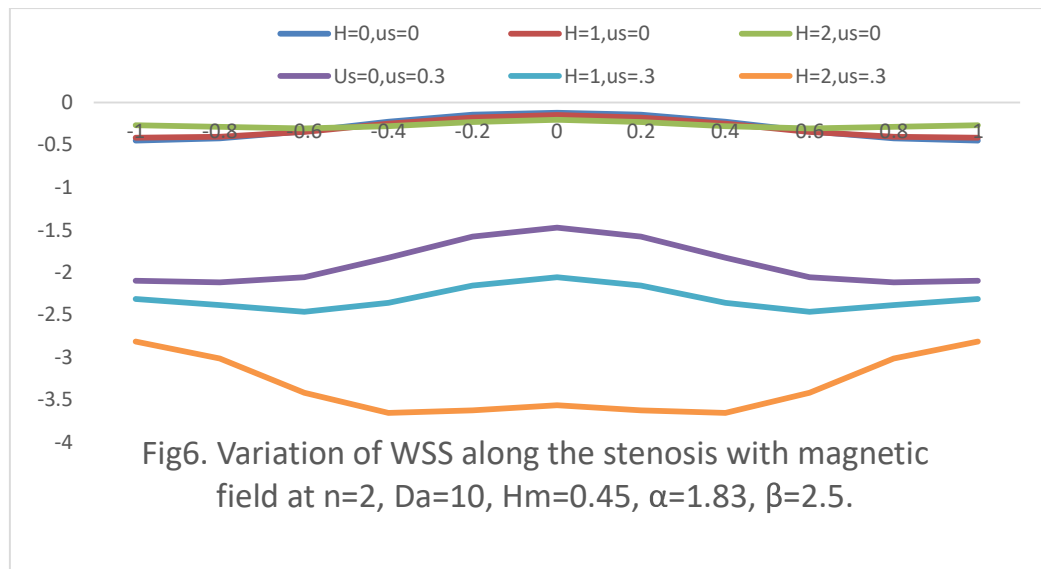
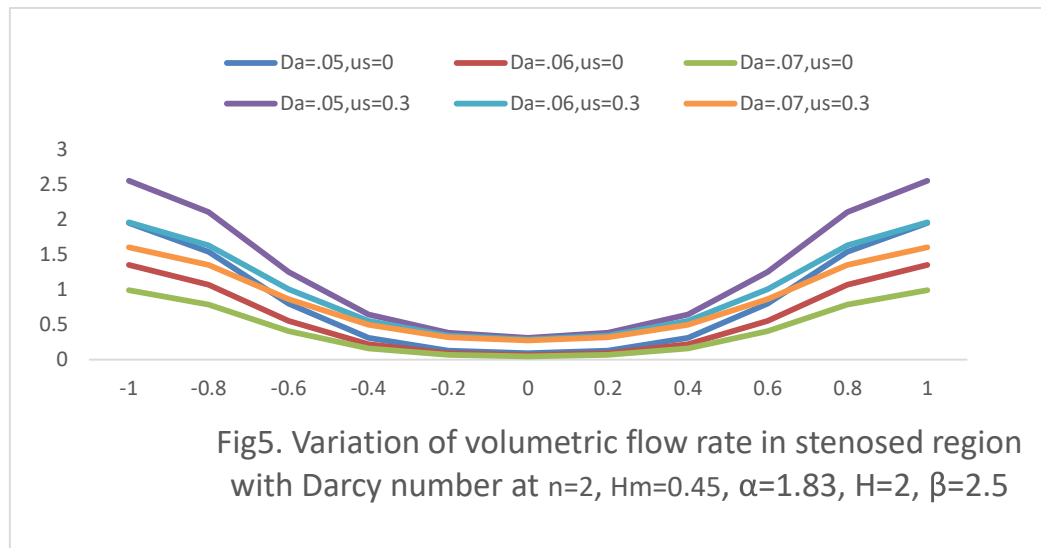
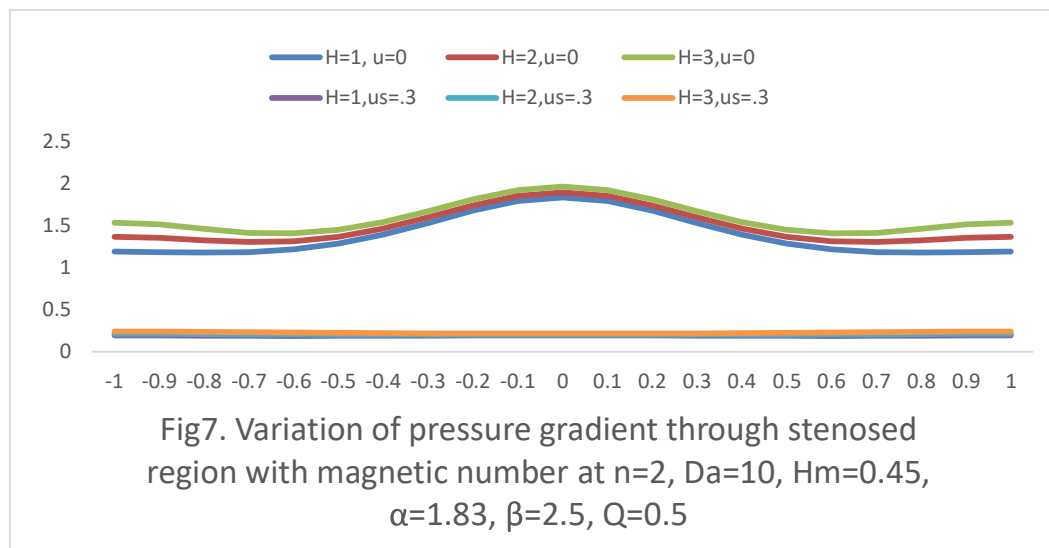


Fig4. Variation of volumetric flow rate in stenosed region with womersley number at  $H=2, Hm=0.45, p=0.5, Da=10, \beta=2.5$







In figures 2 to 5, it is observed that volumetric flow rate decreases with the increase of magnetic field, Hematocrit concentration, Womersley number and Darcy number in both the cases, with slip or without slip at arterial wall. The Slip velocity fairly increase the volumetric flow rate as compare to the no-slip at the wall of artery. WSS and WSSG increases with the increase of magnetic field which is in good agreement with earlier results.

### Conclusion

The magnetic field, Hematocrit concentration and Darcy number is more effective than Womersley number in volumetric flow rate.

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## Statistical Analysis on Cyber Crime against Women

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### ABSTRACT

Information and Internet technology is the axis of global and technical evolution. Over the some last decades information technology has broaden. The World of internet provides each and every individual all the necessary information quickly by communication and share-out tool which makes it the most important beginning source of information. With the help of internet we can look out unknown and communicate with nigh anyone, anytime, anyplace all over the worldwide. The cyberspace has revolutionized the way business movement and conduct work. A good planned and implemented e- commerce system can let down transaction costs, minify inefficiencies, raise better information flow and promote better group action in between buyer and sellers. But at the mean time, certain social, political and economic activities like cyber crimes against women being discovered. Cyber space has wide-eyed doors to cyber criminal and for the most part generally women are on their target. With the advanced of technology the way of conducting crime is becoming more sophisticated and complex. Cyber crime is real threat to the fast growing technology development. The speedy or fast growth of the cyberspace users are drastically enlarged the probability of crimes. Cyber crime is a World-wide phenomenon and generally women are the main soft target of this new form crime. In this paper many issues are discussed like cyber stalking, Harassment via e-mail, cyber defamation, morphing and e-mail spoofing against women. Also this paper is a intentionally efforts to define cyber crime which is a actual warning to women and also some suggestion are discuss to fight against cyber crimes.

Keywords:- Cyber Crime, Information and technology, victim, women

### **Introduction:-**

Nowadays Crime against women is an emerging Challenge and other issues are articulated comprehensively. The biological weakness of women makes her an easy prey particularly to physically domination. She is often a victim of physical violence not only in her home but outside her home .unfortunately; women have been discriminating in all spheres of life in all societies. Various types of crimes are inflicted on them. Rape, wife beaten, sexual harassment etc. Today's a modern woman frequently faces cyber crime. Harassment through electronic mean by sending grossly offensive or menacing information and persistently causing annoyance, injury, insult etc. are some cyber crimes. So an attempt has been made in the research work to analyze the different kind of cyber crimes against women. The present study tries to accomplish the following objective:

- (i) To analyze the different kinds of cyber crimes against women in world-wide especially in India.
- (ii) To study the modern distressing tendency in crime against women.
- (iii) To find out the different types of reasons for crime against women in our country.
- (iv) Also discussing some different to the point applicable data, tables and figures related to this cyber crime against women.

Cyber Crime or Internet crime is a computer oriented crime which includes a computer and a cyberspace .Cyber crime can be defined as “offense which are bounded up against individuals or groups of individuals with the criminal motif to intentionally harm the reputation of the victim or cause physical or mental harm or loss, to the victim directly or indirectly by using modern telecommunication cyberspace such as internet and mobile phone.

### **Cyber crime against women in India**

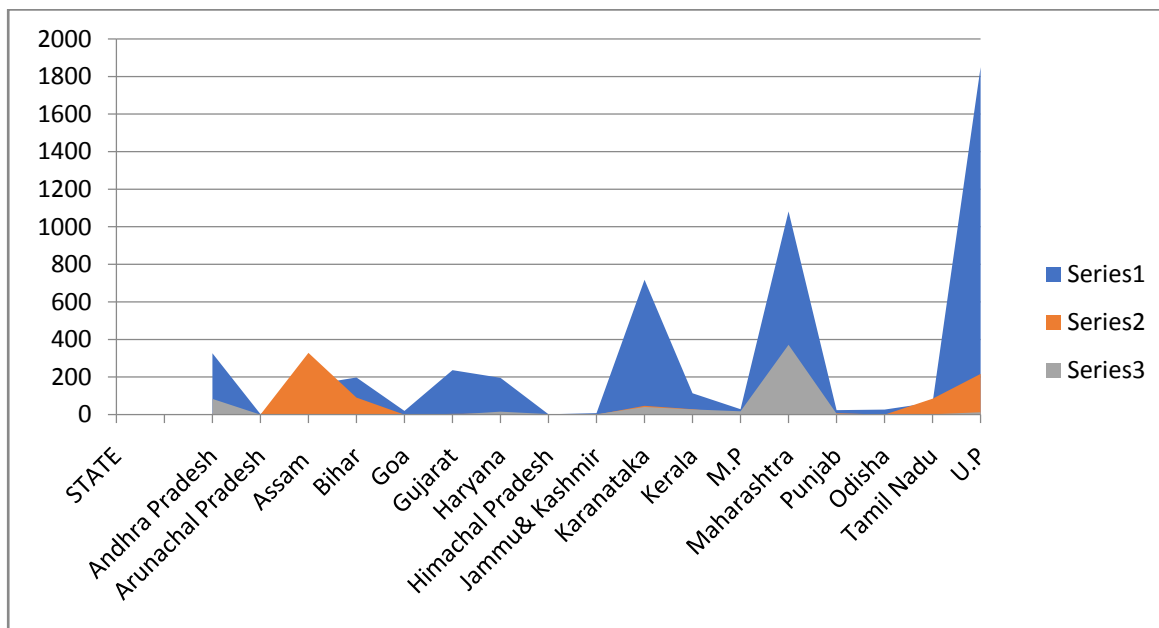
With the increasing economic importance, the degree of criminal actions within the internet is supposed to increase with accelerating speed. Cyber crime against women is most important or an alarming stage and it may constitute a major threat to the security of a person. The World Wide Web permits users to circulate subject matter or messages in the form of text, images and videos. In particular, worldwide spread circulation of such content is harmful for women. In the recent years there have been various reports of women receiving unrequested e-mail which having obscene language. In 2012, The NCRB also provided an insight figure into the changing mind-set of Kerala State.

- Total numbers of 96 cases were enrolled under cyber crimes which have the motif of harassment of women.
- 312 persons arrested as suspects in cases for cyber crimes out of which 73 cases were known persons, neighbor`s, friends and relative.
- 48 cases enrolled for money.
- 48 cases were enrolled for fraud or illegal gain.

According to statistics' (Cyber Crime -2014-16)

Cyber crime went up by 6.3% in 2016 over 2015. Uttar Pradesh (21.4, 2639 cases) reported the most cases followed by Maharashtra with 19.3% (2380 cases) and Karnataka with 8.9% (1101 Cases).Some cyber crime of other states are given in following table and figure:

STATE	2014	2015	2016
Andhra Pradesh	282	536	616
Arunachal Pradesh	28	6	4
Assam	379	483	696
Bihar	114	242	309
Goa	62	17	31
Gujarat	227	242	362
Haryana	151	224	401
Himachal Pradesh	38	50	31
Jammu& Kashmir	37	34	28
Karanataka	1020	1447	1101
Kerala	450	290	283
M.P	289	231	258
Maharashtra	1879	2195	2380
Punjab	226	149	102
Rajasthan	697	949	941
Tamil Nadu	703	687	593
U.P	1737	2208	2639



Generally cyber crime can be divided in two parts.

1. **The computer as a target-** If a computer is using to attack other computers e.g. Hacking, Virus/Worm attack, DOS attack etc.
2. **The computer as a weapon-** If a computer is used to do real worldcrimes e.g. Cyber Terrorism, Credit Frauds, Pornography etc.

In India the term “cyber crime against women” includes sexual crimes and sexual insult or ill-usage on the internet. Out of the total number of crimes specially targeting women are as follows:

**Harrassment via e-mails:-** Nowadays this type of molestation is not a new-born phenomenon. It includes blacking, threatening,e-mail, defamatory mails, spamming e-mails and content sending of love letters in anonymous names or regular sending of embarrassing mail to one`s mail box. E-mail bombing is particularly characterized by abuses continual sending an same e-mail message to a particular address.

**Cyber Stalking:-** it is the most widespread cyber space crimes in the recent all over the world. It includes the perennial acts harassment or threatening behavior of the cyber criminal towards the victim by using the internet services.

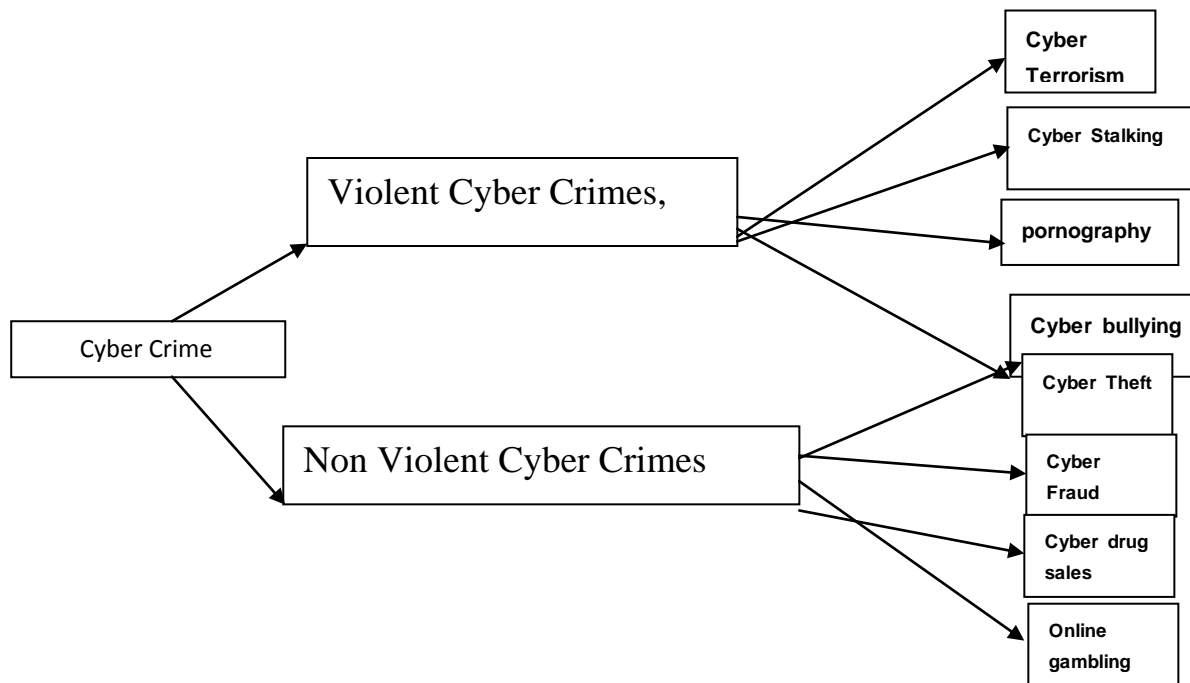
In 2012 Statistics, The NCRB for Kerala State arrests 15 person below age 18years, 81 persons between the age 18-30 years, 44 persons between the age 30-45 years, 11 persons between the age 45-60 years for cyber crimes.

According to the IT act of Kerala State, 147 cases were registered for the publishing or electronic transfer of offense material out of the total number of cases enrolled. This is the highest cases among the other states. Maharashtra came second with 76 cases.

Initially, Ritu Kojli complained to the police against a person who was using her personal information to chat over the internet at website, mostly in Delhi channel for four consecutive days. She complained that the person was chatting on net, using her name and giving her address and was talking obscene language.



In the another ways cyber crimes can be easily placed into two categories: Violent Cyber Crimes, Non Violent Cyber Crimes. In detail these can be study with the help of following model.



**Defamation:-** It concerns with publishing defamatory information about the person on a website or circularize it among the victim's friends circle. This can happen to both genders but women are more threatened.

**Morphing:-** Morphing is an action to release original picture to abuse it by unauthorized user or fake identity. Here the female's photographs are uploaded from social websites by fake users and again reload on various websites by creating fake profiles.

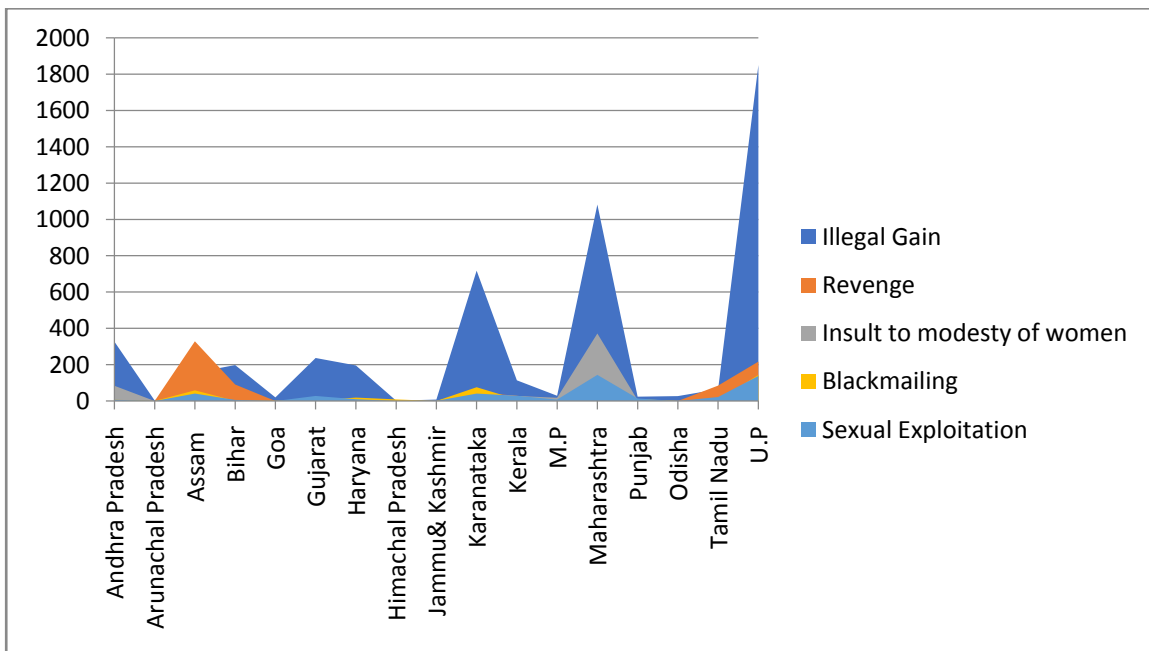
**Cyber Pornography:-** Adult entertainment is bigger industry on cyberspace. Nowadays there are more than 420 million individual pornographic web pages. It is the showing sexual activity in order to cause sexual excitation. Here women and children are becoming the main victim of this side of technology.

**E-mail Spoofing:-** It mention to an email that emerges from one source but has been sent from another source. It can cause monetary damage.

**Cyber Bullying:-** Cyber bullying is self-willed and continued harm inflicted through the use of computers, Cell phone, by transferring messages of threatening in nature. India is in third in number from China and Singapore in online bullying.

India's National Crime Records Bureau (NCRB) released crime statistics for the last year. For the sake of appropriate comparison, the NCRB has provided crime rates in terms of crime per lakh population. Furthermore, the Bureau has bifurcated data on crimes such as murder, crime against women. In regard to crimes against women, Lucknow has the highest rate (179) followed by Delhi (52), Indore(130), Jaipur(128) and Kanpur(118). The lowest rate are reported from Coimbatore(7), Chennai(15), Surat(28), Kolkata(29). An analysis of all the above data reveals that Delhi, Jaipur, Lucknow, Indore have the highest average crime rates across other crime categories,

STATE	Illegal Gain	Revenge	Insult to modesty of women	Blackmailing	Sexual Exploitation
Andhra Pradesh	327	6	84	7	7
Arunachal Pradesh	3	0	0	0	0
Assam	156	329	3	59	41
Bihar	198	91	0	1	6
Goa	20	0	0	2	0
Gujarat	237	4	0	3	28
Haryana	196	6	16	19	10
Himachal Pradesh	2	1	3	9	0
Jammu & Kashmir	8	0	2	0	1
Karnataka	718	47	41	76	41
Kerala	114	29	28	9	29
M.P	29	5	18	5	8
Maharashtra	1082	45	372	46	144
Punjab	24	8	5	11	14
Odisha	27	0	2	0	0
Tamil Nadu	65	85	2	5	22
U.P	1850	217	13	144	138



### **Problem In Hand:**

- Most of the cyber crimes remain unreported because of the hesitation and shyness of the victim and her fear of defamation of family`s name.
- Non existence of digital police portal currently due to abuse on online platform
- Cyber Laws have not been developed properly and the procedure for registering a complaint is not known by woman.
- Due to the lack of cyber Forensics Laboratories. It takes more time for investigation and many times cases are unsolved.

### **Suggestion and Conclusion:**

- It is required to collaborate both police force and cyber forensic laboratories together for better investigation.
- There should be digital police portal where women can complain their problem online.
- NCRB should assemble all the cases related to women and other cyber crimes against women under a separate category.
- Girls should be made alert about all types of cybercrimes and how to handle them.
- School curriculum must cover all aspects of cybercrimes.
- Special women courts need to be set up.

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## भारतीय प्रजातन्त्र एवं मतदान

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आज का युग प्रजातन्त्र का युग है और भारत विश्व का सबसे बड़ा प्रजातन्त्रात्मक देश है। प्रजातन्त्रीय शासन प्रणाली में मतदाता केन्द्रीय भूमिका में होते हैं यानी की पूरी शासन प्रणाली मतदाताओं के ईद-गिर्द घूमती है, अगर यू कहे की पूरी शासन प्रणाली की बुनियाद मतदाता ही होते हैं तो कोई अतिशयोक्ति नहीं होगी। प्रत्येक पांच वर्ष के बाद जनता तय करती है कि अगले पांच वर्ष हमारा शासक कौन होगा, यह सब मत के माध्यम से ही सम्भव हो पाता है। कहने का तात्पर्य यह है कि देश के मतदाताओं के ऊपर यह बहुत बड़ी जिम्मेदारी होती है, शासक का चुनाव करना, इस जिम्मेदारी का मतदाताओं को निर्वहन करना पड़ता है। शासक का चुनाव करना उतना ही जिम्मेदारी व जागरूकता का कार्य है जितना कि एक बीमार व्यक्ति के लिए डॉक्टर का चुनाव करना। एक गलत डॉक्टर का चुनाव हमारे जीवन के लिए खतरनाक है और गलत शासक का चुनाव राष्ट्र के लिए घातक है। इसलिए यह अपेक्षा की जाती है कि देश का प्रत्येक मतदाता जागरूक हो, सक्षम हो, योग्य हो, कुशल हो, और स्व-विवेकी हो ताकि एक सही शासक का चुनाव कर सके और देश का प्रजातन्त्र एक मजबूत प्रजातन्त्र के रूप में जाना जाए। इसलिए राज्य की तरफ से, सरकार की तरफ से हर सम्भव प्रयास किए जाते हैं क्योंकि हर राजनीतिक व्यवस्था में राजनीतिक भागीदारी एक आवश्यक तत्व है। राजनीतिक शक्ति सभी जगह कुछ लोगों के पास होती है लेकिन ये सत्ताधारी चाहते हैं कि जनता की कुछ अंश में राजनीतिक भागीदारी हो ताकि उनकी राजनीतिक सत्ता को वैधता मिल जाए। और इससे व्यवस्था में स्थिरता भी आती है। अगर राजनीतिक भागीदारी का कोई भी अवसर न हो स्थिति विस्फोटक बन जाती है। अतः गैर-जनतान्त्रिक व्यवस्थाओं में भी इसको प्रोत्साहित किया जाता है ताकि शासकों के निरकुंश निर्णयों पर जनता के समर्थन का पदो पड़ा रहे।

प्रजातन्त्र में इस राजनीतिक भागीदारी यानी मतदान का और भी ज्यादा महत्व है क्योंकि मतदान ही वह प्रमुख साधन है जिसके माध्यम से सहमति प्रदान की जाती है तथा शासकों को जिम्मेदार बनाया जाता है। वोट का अधिकार एक बहुत बड़ा सवैधानिक अधिकार है। आज पूरे विश्व में वयस्क मताधिकार को अपनाया गया है यानि कि आयु के आधार पर मत का अधिकार, यह आयु की सीमा पूरे विश्व में एक नहीं है, यह प्रत्येक देश के भौगोलिक वातावरण पर निर्भर करती है। हमारे देश में यह 18 वर्ष है, पहले 21 वर्ष थी, 1985 में 61 वें सवैधानिक संशोधन के द्वारा 18 वर्ष किया गया क्योंकि उस समय रहे प्रधानमंत्री स्व. श्री राजीव गांधी का तर्क था कि 70 साल के बुजुर्ग कि बजाय महाविद्यालय में पढ़ने वाला युवा ज्यादा सक्षम होता है, जागरूक होता है। यहाँ पर एक बात ध्यान रखने योग्य यह है कि इस वयस्क मताधिकार का इतिहास बहुत पुराना नहीं है, विश्व में प्रजातन्त्र का घर कहा जाने वाला देश इंग्लैण्ड में इसे 1918 में लागू किया गया, इससे पहले सम्पत्ति को आधार माना जाता था यानी कि जिसके पास जितनी ज्यादा सम्पत्ति होती उसको उतने ही ज्यादा वोट डालने का अधिकार प्राप्त था। और दुर्भाग्य की बात तो यह है कि वहाँ महिलाओं को वोट का अधिकार 1928 में मिला है। हमारे देश में आजादी के बाद सार्वभौमिक वयस्क मताधिकार को अपनाया गया है। वोट का अधिकार एक सवैधानिक अधिकार होने के साथ-साथ एक लोकतांत्रिक कर्तव्य भी है। चुनाव में 100 प्रतिशत मतदान से ही मतदाताओं की सहमति या असहमति का सही मायने में पता लगता है। लेकिन इस मामले में दुख की बात यह है कि हमारे देश में किसी भी स्तर का चुनाव हो मतदान प्रतिशत 60 से 70 प्रतिशत मुश्किल से होता है, वह भी तब जब उम्मीदवार पुरा जोर लगा लेते हैं, गाड़ीयों का प्रयोग करते हैं मतदाताओं को लाने में। मतदान का यह आँकड़ा बहुत कम है और यहाँ पर मैं कहना चाहूँगा कि लोकतन्त्र में वोट न डालना, लोकतन्त्र की नींव पर प्रहार करने से कम नहीं है। इससे लोकतन्त्र को नुकसान पहुँचता है।

इस प्रकार ये 30 से 40 प्रतिशत लोग जो वोट नहीं डालते, ये हमारे सामने एक बहुत बड़ी चुनौती है। इन लोगों को हम राजनीति शास्त्र में उदासीन (Apathetic) कहते हैं, इनके दो प्रकार हैं- अनजाने में वोट न डालना, जान-बुझकर के वोट न डालना। अनजाने में- इसमें ऐसे लोग आते हैं जिनके पास सूचना का अभाव, अवसर नहीं मिलता, लगे रहते हैं काम में, पता ही नहीं चलता कि कब क्या हो रहा है। यह सब जान-बुझकर नहीं होता-अशिक्षा इसका कारण हो सकती है, पुरुष प्रधान समाज में स्त्रियाँ हो सकती हैं। कई बार व्यक्ति की स्वयं की अयोग्यता भी जैसे-अपने आप को अभिव्यक्त न कर पाना भी इसका कारण है।

जान बुझकर वोट नहीं डालते- इस कटौती में पढ़े-लिखे और अच्छे पदों पर आसिन लोगों की संख्या भी बहुत ज्यादा होती है। इनको वोट डालने की बजाए दूसरे क्रियाकलापों में ज्यादा संतोष मिलता है- जैसे परिवार के साथ या दोस्तों के साथ समय विताना।

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इस कटौती के कुछ लोगों का यह मानना होता है कि एक वोट से क्या फर्क पड़ता है और पूरे देश में ये एक-एक करके काफी संख्या हो जाती है। जब तक लोगों को यह अहसास नहीं होगा कि उनके मत से फर्क पड़ेगा या सरकार बनाने वाली पार्टी समाज में फर्क ला सकेगी तब तक 100 प्रतिशत मतदान नहीं हो सकता। कुछ लोग सरकार की नाकामी या अपनी नाराजगी (सरकार चाहे किसी भी पार्टी की हो) का जवाब वोट के प्रति उदासीन होकर देते हैं जो कि उचित नहीं है। जबकि वोट का प्रयोग करके ही अपने मकसद को पुरा करना चाहिए। कुछ लोग मतदान प्रक्रिया की कठोरता के कारण वोट नहीं डालते जैसे वोट के लिए लम्बी-लम्बी लाइनों में घण्टों तक खड़े होकर समय बर्बाद होना, मतदाता पहचान पत्र व मतदाता सूचियों में गड़बड़ी होना। कुछ लोगों का चुनाव, नेताओं व पार्टियों के प्रति बड़ा नकारात्मक दृष्टिकोण होता है, कुछ लोग संकुचित विचारधारा के होते हैं, उनका मानना है कि सब धोखा है, कुछ सुधर नहीं सकता इसलिए वोट नहीं डालते। वोट न डालने वालों की इस कटौती में वे दिहाड़ी मजदूर भी आते हैं जिनके पास पेड़ लीव जैसी सहूलियतें नहीं होती, उनका छुट्टी लेने का मतलब एक दिन की मजदूरी न मिलना है जो वे वहन नहीं कर सकते। इस कटौती में वे वोट भी आते हैं जिनका अस्तित्व ही नहीं है यानि कि जो मर चुके हैं, इन्हें अंग्रेजी में घोस्ट वोटर्स कहते हैं जो कभी वोट नहीं डालने वाले, फिर 100 प्रतिशत मतदान का स्वप्न कैसे पुरा हो सकता है। इसके अतिरिक्त मतदाताओं को फोटोयुक्त पहचान पत्र प्रदान करके, त्रुटि रहित मतदाता सूचियों तैयार करके व मतदान के लिए जो लम्बी-लम्बी लाइनें लगती हैं, जिनके कारण कई मतदाता लाइनों में लगकर समय बर्बाद करने की बजाए, वोट डालने नहीं जाते, इस समस्या का समाधान मोबाइल पोलिंग बुथ को अपनाकर किया जा सकता है।

इस दिशा में सरकार की तरफ से अच्छे प्रयास किए जा सकते हैं क्योंकि जहाँ राजनीतिक व्यवस्था ज्यादा जटिल होती है, प्रशासक के नियम कठोर होते हैं और राजनीतिक संचार ठीक प्रकार से नहीं होता तो व्यक्ति में एक दुरत्व की भावना आ जाती है और वह अपनी भूमिका को ठीक प्रकार से नहीं निभा पाता। इसके विपरीत जहाँ राजनीतिक शक्ति के लिए खुली स्पर्धा होती है और यह स्थापित प्रक्रियाओं पर आधारित होती है तो लोगों का राजनीतिक व्यवस्था में विश्वास बढ़ता है और वे मतदान के माध्यम से अपनी भागीदारी दर्ज करवाने के लिए हमेशा तैयार रहते हैं। उदाहरण के लिए अगर चुनाव के नियम सरल हो, मतदान की प्रक्रिया ज्यादा जटिल न हो और सरकार की तरफ से भी मतदाताओं को शिक्षित करने के लिए तथा उत्साहित करने के लिए लगातार प्रयास किया जाए तो स्वाभाविक है कि मतदान का प्रतिशत अधिक होगा।

इस दिशा में राजनीतिक दलों की भूमिका भी अहम हो सकती है। राजनीतिक दल सरकार तक जनता की इच्छाओं को पहुंचाने का सबसे महत्वपूर्ण साधन है। राजनीतिक दल सूचनाओं के माध्यम से लोगों में उत्साह पैदा कर सकते हैं जैसे देश में प्रमुख मुद्दे क्या हैं और उन पर कैसे निर्णय लिया जाए। इस कार्य के लिए संगठित राजनीतिक दलों का होना अति आवश्यक है। राजनीतिक दल उदासीन से उदासीन व्यक्ति में भी रुचि पैदा कर सकते हैं। राजनीतिक दलों कि इस मुहिम में जन संचार के साधनों की भूमिका भी बड़ी महत्वपूर्ण है। इसलिए जनसंचार के साधनों का भी स्वतन्त्र व निष्पक्ष होना बहुत जरूरी है।

सौ प्रतिशत मतदान को सुनिश्चित करने के साथ-साथ एक जरूरी बात यह है कि वोट का सही प्रयोग करना चाहिए यानी कि दुरुपयोग नहीं करना चाहिए। दुरुपयोग करने की बजाए तो अगर वोट न डाला जाए तो अच्छा है या नोटा का प्रयोग किया जाए। हमें वोट का प्रयोग जाति के आधार पर, धर्म के आधार पर, क्षेत्र के आधार पर, या किसी प्रलोभन में आकर नहीं करना चाहिए, बल्कि वोट का प्रयोग उम्मीदवार की उपयोगिता, कार्यशैली और उसकी योग्यता के आधार पर होना चाहिए। उम्मीदवार के कार्य व व्यक्तित्व को महत्व दिया जाना चाहिए तभी जाकर प्रजातन्त्र की सफलता के प्रति हमारे दायित्व की पूर्ति व इस मताधिकार की सार्थकता सिद्ध होगी।

### सन्दर्भ ग्रंथ सूची

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## पंचायती राज संस्थाओं में महिलाओं की भागीदारी: चुनौतियां एवं अपेक्षाएं

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समाज में सदियों से ही महिलाओं का स्थान गौरवशाली रहा है। पौराणिक कथाएं एवं इतिहास इस बात की साक्षी है कि महिलाएं न केवल पूज्य रही हैं, बल्कि समाज को नेतृत्व प्रदान करने में उन्होंने महत्वपूर्ण एवं अग्रणी भूमिका निभाई है। आजादी के बाद बने भारतीय संविधान और उसमें होते रहे संघर्षों में इस तथ्य को बराबर महसूस किया जा रहा है कि महिलाओं की भागीदारी सामाजिक व राजनीतिक क्षेत्रों में बढ़ाना आवश्यक है। सन् 1959 में बलवंतराय मेहता समिति की सिफारिशों के आधार पर त्रि-स्तरीय पंचायती राज व्यवस्था लागू की गई और यह माना गया कि समग्र विकास महिलाओं की अनदेखी करके नहीं किया जा सकता। इसीलिए पंचायती राज व्यवस्था को सुदृढ़ करने तथा पंचायतों में महिलाओं की एक तिहाई भागीदारी सुनिश्चित करने के उद्देश्य से 1992 में 73 वीं संवैधानिक संशोधन अधिनियम पारित किया गया। इस व्यवस्था का प्रभाव यह हुआ कि देशभर में लाखों महिलाएं पंचायतों के नेतृत्व हेतु मैदान में आ गईं। इस प्रकार संविधान का यह प्रावधान महिलाओं की छिपी शक्ति को उजागर करने का सार्थक कदम था। लेकिन इस व्यवस्था के बावजूद भी आज महिलाओं की छिपी शक्ति को उजागर करने का सार्थक कदम नहीं हो पाई है जो अपेक्षित है। उनकी इस सक्रिय भागीदारी के मार्ग में आज अनेकों चुनौतियां बरकरार हैं, जिनका निदान किए बिना पंचायती राज संस्थाओं में महिलाओं की भागीदारी को व्यावहारिक रूप प्रदान नहीं किया जा सकता। ये चुनौतियां निम्नलिखित हैं:-

**महिलाओं का अपना स्वभाव एवं प्रकृति-** महिलाएं स्वभाविक रूप से भावुक, आश्रित, उदासीन, आज्ञापालक व समाज की सामान्य संस्कृति का विरोध न करने वाली होती हैं। उन्हें गृह प्रबंध एवं बच्चे पालन, माँ और पत्नी के रूप में क्रियाशील रहने में ही आनंद प्राप्त होता है। स्त्रियों और पुरुषों के मध्य स्पष्ट भेद है। दोनों के मनोविज्ञान अलग-अलग है। यह सर्वप्रचलित बात है। किंतु आधुनिक मनोवैज्ञानिकों ने यह सिद्ध कर दिया है कि महिलाओं के विषय में हमारी धारणाएं मिथ्या हैं। हम पूर्वाग्रहों से ग्रस्त हैं।

**भारतीय समाज की परम्परावादी प्रकृति-** महिलाओं और पुरुषों के व्यवहार का अंतर हमारी पारम्परिक सामाजिक प्रक्रिया का परिणाम है। क्योंकि बचपन से ही दोनों को उच्चता और हीनता की शिक्षा दी जाती है। इसका परिणाम यह होता है कि जैसे-जैसे उमर बढ़ती है। वैसे-वैसे महिलाओं की हीनता भी बढ़ती जाती है। इसके साथ-साथ कुछ और पारम्परिक कारण भी हैं जैसे प्रदा प्रथा, पारम्परिक संस्कार, पारम्परिक पुरुष वर्चस्व, रुढ़िवादिता आदि जो इसके लिए उत्तरदायी हैं। और भारतीय समाज एक प्राचीन समाज है। अतः इसमें क्रांतिकारी परिवर्तन होने के अवसर भी बहुत कम हैं।

**महिलाओं में उत्तरदायित्व का भाव तथा परिवार के सदस्यों की उनसे उम्मीदें:-** महिला जनप्रतिनिधियों की एक समस्या यह भी है कि उनके भरे-पूरे परिवार होते हैं वे लोक कार्यों के उपरांत अपना अधिकांश समय परिवार या पारिवारिक कार्यों में देना आवश्यक समझती हैं। परिवार की भी अपेक्षा यही रहती है कि वे ज्यादातर समय परिवार को दें। इस मनोविज्ञान का परिणाम यह होता है ये जन प्रतिनिधि अपने क्षेत्र में व्यापक जनसंपर्क नहीं कर पाती। उनके स्थान पर निकटतम रिश्तेदार और परिचित व्यक्ति आदि ही सामान्यतः विशेष संपर्क सूत्र रहते हैं। भेंटवार्ता के दौरान कई महिला जनप्रतिनिधियों ने यह स्वीकार किया कि जब वे पहली बार निर्वाचित होकर आईं तो उन्हें बहुत सारे व्यक्तियों के बीच बोलने में संकोच का अनुभव हुआ। उनका यह संकोच केवल मनोवैज्ञानिक हीनता थी। यह भी देखने में आया है कि अनुभवी जनप्रतिनिधि अपने अधिकारों के प्रति काफी सजग रही हैं और जब उन्हें कभी बोलने का अवसर नहीं मिलता या कम मिलता है तो वे कहने लगती हैं कि महिला जनप्रतिनिधियों को बोलने का अवसर नहीं दिया जा रहा है या कम दिया जा रहा है, या पक्षपात किया जा रहा है। वे अपना रोष भी प्रकट करती हैं। वर्तमान में पंचायती राज संस्थाओं के माध्यम से जो महिला जनप्रतिनिधि निर्वाचित होकर आ रही हैं उनकी हिम्मत पहले की बजाय अब बढ़ी है और दूसरी सफल जनप्रतिनिधियों को देखकर उनमें भी अब उत्साह आ रहा है।

**पंचायती राज व्यवस्था में समाज के प्रभावी वर्ग का वर्चस्व-** यह आमतौर पर देखने में आया है कि जहां कहीं भी महिला सदस्य अथवा प्रधान या सरपंच समाज के प्रभावी वर्ग के विरुद्ध फंसला करते हैं तो उन्हें अनेक समस्याओं का भी सामना करना पड़ता है यहां तक कि अपने विरुद्ध हिंसा और सामाजिक विरोध भी सहना पड़ता है। इसके अलावा जानकारी का अभाव, शिक्षा का अभाव, जागरूकता का अभाव, प्रशासनिक अधिकारियों का सहयोग न करना, पुरुष वर्ग का असहयोग आदि कुछ सामाजिक कारण भी पंचायतीराज संस्थाओं में महिलाओं की भूमिका को प्रभावित करते हैं और वही कुछ आर्थिक कारण जैसे गरीबी, बेरोजगारी, आर्थिक संसाधनों का न होना भी इस मार्ग में बड़ी बाधा बने हुए हैं। महिलाओं के संदर्भ में कहा जा सकता है कि अभी भी महिलाओं का एक बड़ा समूह राजनीतिक क्षेत्र में स्वयं को पृथक रखे हुए है। गिनी-चुनी महिलाएं ही राजनीतिक निर्णय प्रक्रिया में भाग लेने हेतु आगे आ पाईं।

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राजनीतिक सहभागिता के लिए प्रदत्त आरक्षण का अधिकार परिवार के पुरुष सदस्य द्वारा सत्ता प्राप्त करने का एक साधन ही सिद्ध हुआ है। वास्तविक अर्थों में महिलाएं अपनी निम्न सामाजिक, आर्थिक, शैक्षणिक स्थिति के कारण ही अपने इस अधिकार का उपयोग करने में असमर्थ सिद्ध हुई हैं। भविष्य में जैसे-जैसे महिलाएं प्रशिक्षण प्राप्त करने से व पंचायतों की बैठकों में भाग लेने के माध्यम से इक्टूटा होगी, कम मुखर महिला प्रतिनिधियों पर मुखर महिलाओं का प्रदर्शनकारी प्रभाव पड़ेगा जो उनकी पंचायतों की भूमिका को सकारात्मक रूप से प्रभावित करेगा।

#### निष्कर्ष

इस प्रकार निष्कर्ष के तौर पर कहा जा सकता है कि महिला प्रतिनिधियों में शिक्षा की कमी, महिलाओं में अजागरूकता, पुरुष वर्ग का वर्चस्व, नौकरशाही की उदासीनता, समाज के प्रभावशाली वर्गों द्वारा स्थानीय स्तर की संस्थाओं पर प्रत्यक्ष एवं परोक्ष प्रभुत्व की स्थापना, समाज में व्याप्त परम्परावादिता, वर्गीय एवं जातीय तनाव तथा महिलाओं की प्रशासनिक क्षमता में समाज का अविश्वास आदि ऐसे सामाजिक मुद्दे हैं जो पंचायती राज व्यवस्था को प्रभावशाली बनाने में एवं महिलाओं के द्वारा उक्त व्यवस्था में सक्रिय भागीदारी के क्रम में बाधाकारी प्रतीत होते हैं। महिलाओं की राजनीतिक सहभागिता के आधार को व्यापक बनाने तथा उसमें गुणात्मक परिवर्तन लाने के लिए तीन बातों की अपेक्षा है। प्रथम महिलाओं में वर्गीय चेतना का विकास, द्वितीय आर्थिक निर्भरता के अवसर और तीसरे शिक्षित बनाना। पुरुषों की मुखापेक्षी बनकर महिलाएं अपना भला नहीं कर सकती। महिला संगठनों को इस दिशा में आगे आना चाहिए। राजनीतिक दलों को भी इस बात को गम्भीरता से लेना चाहिए। उन्हें अपने दलीय संगठनों के प्रत्येक स्तर पर महिलाओं को समुचित प्रतिनिधित्व देना चाहिए।

आज आवश्यकता इस बात की है कि लोकनीति निर्माणकर्ता जो व्यवस्था की कुर्सी पर विराजमान हैं, वे यथार्थ को समझे और शिक्षण-प्रशिक्षण एवं जन-जागरण के माध्यम से स्थानीय प्रशासन में महिलाओं को इतना सशक्त समर्थन प्रदान करें ताकि वे अपनी क्षमताओं का सही-सही उपयोग एवं प्रदर्शन कर सकें। इसके साथ-साथ मतदाताओं व महिला जन प्रतिनिधियों को भी इस बारे में अधिक परिश्रम की आवश्यकता है ताकि निम्न स्तर पर राजनीतिक सहभागिता को स्थापित कर भारतीय लोकतांत्रिक व्यवस्था की जड़ों को मजबूती प्रदान की जा सके।

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## पंचायती राज संस्थाओं में महिलाओं की भागीदारी: चुनौतियां एवं अपेक्षाएं

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समाज में सदियों से ही महिलाओं का स्थान गौरवशाली रहा है। पौराणिक कथाएं एवं इतिहास इस बात की साक्षी है कि महिलाएं न केवल पूज्य रही हैं, बल्कि समाज को नेतृत्व प्रदान करने में उन्होंने महत्वपूर्ण एवं अग्रणी भूमिका निभाई है। आजादी के बाद बने भारतीय संविधान और उसमें होते रहे संघर्षों में इस तथ्य को बराबर महसूस किया जा रहा है कि महिलाओं की भागीदारी सामाजिक व राजनीतिक क्षेत्रों में बढ़ाना आवश्यक है। सन् 1959 में बलवंतराय मेहता समिति की सिफारिशों के आधार पर त्रि-स्तरीय पंचायती राज व्यवस्था लागू की गई और यह माना गया कि समग्र विकास महिलाओं की अनदेखी करके नहीं किया जा सकता। इसीलिए पंचायती राज व्यवस्था को सुदृढ़ करने तथा पंचायतों में महिलाओं की एक तिहाई भागीदारी सुनिश्चित करने के उद्देश्य से 1992 में 73 वीं संवैधानिक संशोधन अधिनियम पारित किया गया। इस व्यवस्था का प्रभाव यह हुआ कि देशभर में लाखों महिलाएं पंचायतों के नेतृत्व हेतु मैदान में आ गईं। इस प्रकार संविधान का यह प्रावधान महिलाओं की छिपी शक्ति को उजागर करने का सार्थक कदम था। लेकिन इस व्यवस्था के बावजूद भी आज महिलाओं की छिपी शक्ति को उजागर नहीं हो पाई है जो अपेक्षित है। उनकी इस सक्रिय भागीदारी के मार्ग में आज अनेकों चुनौतियां बरकरार हैं, जिनका निदान किए बिना पंचायती राज संस्थाओं में महिलाओं की भागीदारी को व्यावहारिक रूप प्रदान नहीं किया जा सकता। ये चुनौतियां निम्नलिखित हैं:-

**महिलाओं का अपना स्वभाव एवं प्रकृति-** महिलाएं स्वभाविक रूप से भावुक, आश्रित, उदासीन, आज्ञापालक व समाज की सामान्य संस्कृति का विरोध न करने वाली होती हैं। उन्हें गृह प्रबंध एवं बच्चे पालन, माँ और पत्नी के रूप में क्रियाशील रहने में ही आनंद प्राप्त होता है। स्त्रियों और पुरुषों के मध्य स्पष्ट भेद है। दोनों के मनोविज्ञान अलग-अलग हैं। यह सर्वप्रचलित बात है। किंतु आधुनिक मनोवैज्ञानिकों ने यह सिद्ध कर दिया है कि महिलाओं के विषय में हमारी धारणाएं मिथ्या हैं। हम पूर्वाग्रहों से ग्रस्त हैं।

**भारतीय समाज की परम्परावादी प्रकृति-** महिलाओं और पुरुषों के व्यवहार का अंतर हमारी पारम्परिक सामाजिक प्रक्रिया का परिणाम है। क्योंकि बचपन से ही दोनों को उच्चता और हीनता की शिक्षा दी जाती है। इसका परिणाम यह होता है कि जैसे-जैसे उमर बढ़ती है। वैसे-वैसे महिलाओं की हीनता भी बढ़ती जाती है। इसके साथ-साथ कुछ और पारम्परिक कारण भी हैं जैसे प्रदा प्रथा, पारम्परिक संस्कार, पारम्परिक पुरुष वर्चस्व, रुढ़िवादिता आदि जो इसके लिए उत्तरदायी हैं। और भारतीय समाज एक प्राचीन समाज है। अतः इसमें क्रांतिकारी परिवर्तन होने के अवसर भी बहुत कम हैं।

**महिलाओं में उत्तरदायित्व का भाव तथा परिवार के सदस्यों की उनसे उम्मीदें:-** महिला जनप्रतिनिधियों की एक समस्या यह भी है कि उनके भरे-पूरे परिवार होते हैं वे लोक कार्यों के उपरांत अपना अधिकांश समय परिवार या पारिवारिक कार्यों में देना आवश्यक समझती हैं। परिवार की भी अपेक्षा यही रहती है कि वे ज्यादातर समय परिवार को दें। इस मनोविज्ञान का परिणाम यह होता है ये जन प्रतिनिधि अपने क्षेत्र में व्यापक जनसंपर्क नहीं कर पाती। उनके स्थान पर निकटतम रिश्तेदार और परिचित व्यक्ति आदि ही सामान्यतः विशेष संपर्क सूत्र रहते हैं। भेंटवार्ता के दौरान कई महिला जनप्रतिनिधियों ने यह स्वीकार किया कि जब वे पहली बार निर्वाचित होकर आईं तो उन्हें बहुत सारे व्यक्तियों के बीच बोलने में संकोच का अनुभव हुआ। उनका यह संकोच केवल मनोवैज्ञानिक हीनता थी। यह भी देखने में आया है कि अनुभवी जनप्रतिनिधि अपने अधिकारों के प्रति काफी सजग रही हैं और जब उन्हें कभी बोलने का अवसर नहीं मिलता या कम मिलता है तो वे कहने लगती हैं कि महिला जनप्रतिनिधियों को बोलने का अवसर नहीं दिया जा रहा है या कम दिया जा रहा है, या पक्षपात किया जा रहा है। वे अपना रोष भी प्रकट करती हैं। वर्तमान में पंचायती राज संस्थाओं के माध्यम से जो महिला जनप्रतिनिधि निर्वाचित होकर आ रही हैं उनकी हिम्मत पहले की बजाय अब बढ़ी है और दूसरी सफल जनप्रतिनिधियों को देखकर उनमें भी अब उत्साह आ रहा है।

**पंचायती राज व्यवस्था में समाज के प्रभावी वर्ग का वर्चस्व-** यह आमतौर पर देखने में आया है कि जहां कहीं भी महिला सदस्य अथवा प्रधान या सरपंच समाज के प्रभावी वर्ग के विरुद्ध फेंसला करते हैं तो उन्हें अनेक समस्याओं का भी सामना करना पड़ता है यहां तक कि अपने विरुद्ध हिंसा और सामाजिक विरोध भी सहना पड़ता है। इसके अलावा जानकारी का अभाव, शिक्षा का अभाव, जागरूकता का अभाव, प्रशासनिक अधिकारियों का सहयोग न करना, पुरुष वर्ग का असहयोग आदि कुछ सामाजिक कारण भी पंचायतीराज संस्थाओं में महिलाओं की भूमिका को प्रभावित करते हैं और वही कुछ आर्थिक कारण जैसे गरीबी, बेरोजगारी, आर्थिक संसाधनों का न होना भी इस मार्ग में बड़ी बाधा बने हुए हैं। महिलाओं के संदर्भ में कहा जा सकता है कि अभी भी महिलाओं का एक बड़ा समूह राजनीतिक क्षेत्र में स्वयं को पृथक रखे हुए है। गिनी-चुनी महिलाएं ही राजनीतिक निर्णय प्रक्रिया में भाग लेने हेतु आगे आ पाईं।

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राजनीतिक सहभागिता के लिए प्रदत्त आरक्षण का अधिकार परिवार के पुरुष सदस्य द्वारा सत्ता प्राप्त करने का एक साधन ही सिद्ध हुआ है। वास्तविक अर्थों में महिलाएं अपनी निम्न सामाजिक, आर्थिक, शैक्षणिक स्थिति के कारण ही अपने इस अधिकार का उपयोग करने में असमर्थ सिद्ध हुई हैं। भविष्य में जैसे-जैसे महिलाएं प्रशिक्षण प्राप्त करने से व पंचायतों की बैठकों में भाग लेने के माध्यम से इक्ट्टा होगी, कम मुखर महिला प्रतिनिधियों पर मुखर महिलाओं का प्रदर्शनकारी प्रभाव पड़ेगा जो उनकी पंचायतों की भूमिका को सकारात्मक रूप से प्रभावित करेगा।

#### निष्कर्ष

इस प्रकार निष्कर्ष के तौर पर कहा जा सकता है कि महिला प्रतिनिधियों में शिक्षा की कमी, महिलाओं में अजागरूकता, पुरुष वर्ग का वर्चस्व, नौकरशाही की उदासीनता, समाज के प्रभावशाली वर्गों द्वारा स्थानीय स्तर की संस्थाओं पर प्रत्यक्ष एवं परोक्ष प्रभुत्व की स्थापना, समाज में व्याप्त परम्परावादिता, वर्गीय एवं जातीय तनाव तथा महिलाओं की प्रशासनिक क्षमता में समाज का अविश्वास आदि ऐसे सामाजिक मुद्दे हैं जो पंचायती राज व्यवस्था को प्रभावशाली बनाने में एवं महिलाओं के द्वारा उक्त व्यवस्था में सक्रिय भागीदारी के क्रम में बाधाकारी प्रतीत होते हैं। महिलाओं की राजनीतिक सहभागिता के आधार को व्यापक बनाने तथा उसमें गुणात्मक परिवर्तन लाने के लिए तीन बातों की अपेक्षा है। प्रथम महिलाओं में वर्गीय चेतना का विकास, द्वितीय आर्थिक निर्भरता के अवसर और तीसरे शिक्षित बनाना। पुरुषों की मुखापेक्षी बनकर महिलाएं अपना भला नहीं कर सकती। महिला संगठनों को इस दिशा में आगे आना चाहिए। राजनीतिक दलों को भी इस बात को गम्भीरता से लेना चाहिए। उन्हें अपने दलीय संगठनों के प्रत्येक स्तर पर महिलाओं को समुचित प्रतिनिधित्व देना चाहिए।

आज आवश्यकता इस बात की है कि लोकनीति निर्माणकर्ता जो व्यवस्था की कुर्सी पर विराजमान हैं, वे यथार्थ को समझे और शिक्षण-प्रशिक्षण एवं जन-जागरण के माध्यम से स्थानीय प्रशासन में महिलाओं को इतना सशक्त समर्थन प्रदान करें ताकि वे अपनी क्षमताओं का सही-सही उपयोग एवं प्रदर्शन कर सकें। इसके साथ-साथ मतदाताओं व महिला जन प्रतिनिधियों को भी इस बारे में अधिक परिश्रम की आवश्यकता है ताकि निम्न स्तर पर राजनीतिक सहभागिता को स्थापित कर भारतीय लोकतांत्रिक व्यवस्था की जड़ों को मजबूती प्रदान की जा सके।

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## कौटिल्य कृते अर्थशास्त्र की ऐतिहासिकता : एक समीक्षा

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कौटिल्य द्वारा रचित अर्थशास्त्र प्राचीन भारतीय इतिहास की जानकारी का एक अत्यन्त महत्वपूर्ण एवं सटीक स्रोत है। आचार्य चाणक्य या कौटिल्य चन्द्रगुप्त मौर्य के गुरु तथा मन्त्रि-पुरोहित थे। उन्होंने इस ग्रन्थ में राजा के कर्तव्यों, मन्त्रियों के गुणों, गुप्तचर व्यवस्था, कुटनीति, युद्ध-विधियों, शासन-प्रणाली के सिद्धान्तों एवं भू-राजस्व व्यवस्था पर प्रकाश डाला है। प्राचीन ऐतिहासिक अनुश्रुति के अनुसार चाणक्य ने ही नवनन्दों का विनाश कर चन्द्रगुप्त को मगध के राजसिंहासन पर आरूढ़ कराया था। प्राचीन धार्मिक ग्रन्था में चाणक्य के अनेक नामों का उल्लेख मिलता है जैसे वात्स्यायन, मल्लिनाग, कुटल, चाणक्य, द्रामिल, पक्षिलस्वामी, विष्णुगुप्त और अंगुल। उनका व्यक्तिगत नाम विष्णुगुप्त था। 'कुटल' गात्र में उत्पन्न होने के कारण वो कौटिल्य कहलाए। 'चणक' उनके पिता का नाम था, अतः उन्हें चाणक्य भी कहा जाता है।

इतिहासकारों में कौटिल्य के अर्थशास्त्र के काल एवं उसके लेखक को लेकर पर्याप्त मतभेद हैं। अनेक विद्वानों ने यह मत प्रतिपादित किया है कि कौटिल्य द्वारा रचित अर्थशास्त्र चौथी सदी ई० पू० की रचना न होकर तीसरी या चौथी ई० पश्चात् की रचना है। प्राफेसर जॉली के अनुसार न यह ग्रन्थ मौर्यकाल में लिखा गया और न ही इसकी रचना किसी एक व्यक्ति द्वारा की गई। वस्तुतः यह तो एक सम्प्रदाय की रचना है। अर्थशास्त्र में बार-बार 'इति कौटिल्य' लिखकर कौटिल्य के मत को उद्धृत किया गया है। यदि कौटिल्य ने इसकी रचना की होती तो स्थान-स्थान पर 'इति कौटिल्य' लिखने की आवश्यकता न होती। प्राचीन भारत के प्रसिद्ध इतिहासकार श्री रामकृष्ण गोपाल भण्डारकर ने भी कौटिल्य नाम के किसी व्यक्ति की मौर्य-युग में सत्ता तक को नकारा है। उनके अनुसार पंतजलि ने अपने महाकाव्य महाभाष्य में चन्द्रगुप्त एवं मौर्यों का उल्लेख किया है, परन्तु उन्होंने कहीं पर भी कौटिल्य या चाणक्य का वर्णन नहीं किया है।

इस प्रकार हम कह सकते हैं कि पंतजलि को कौटिल्य या चाणक्य का ज्ञान नहीं था। अतः कौटिल्य का समय पंतजलि के बाद होना चाहिए। पंतजलि शुंग सम्राट पुष्यमित्र के समकालीन थे, जिनका काल दुसरी सदी ई०पू० का है। अतः कौटिल्य पंतजलि से पहले के मौर्य राजा चन्द्रगुप्त के समकालीन कदापि नहीं हो सकते। विन्टरनिट्ज ने भी वर्णित किया है कि मैगस्थनीज, सल्युकस के राजदूत के रूप में चन्द्रगुप्त मौर्य के राजदरबार में कई वर्षों तक रहा था, वास्तव में यदि चाणक्य चन्द्रगुप्त मौर्य का गुरु व मुख्य पुरोहित होता तो यह कतई सम्भव नहीं था कि मैगस्थनीज का ध्यान उसकी ओर न जाता ।

मौर्य सम्राटों ने अभिलेखों एवं शिलालेखों में अपने लिए 'देवान प्रिय' नामक उपाधि का प्रयोग किया था। परन्तु कौटिल्य द्वारा रचित अर्थशास्त्र में 'देवान प्रिय' का कहीं पर भी उल्लेख नहीं है। मौर्य युग में सभी अभिलेख एवं शिलालेख पाली भाषा में उत्कीर्ण किये गये हैं, जिससे प्रतीत होता है कि मौर्यों के राज्य में सब कार्य पाली भाषा में हो किये जाते थे, जबकि अर्थशास्त्र की रचना संस्कृत भाषा में की गई है। भारत में संस्कृत भाषा का राजकीय भाषा के रूप में प्रयोग गुप्तकाल में हुआ है, जो इस तथ्य की ओर संकेत करता है कि अर्थशास्त्र की रचना का समय चौथी शताब्दी का है। इसी तथ्य की पुष्टि समुन्द्रगुप्त के प्रयाग-प्रशस्ति अभिलेख से भी होती है। प्रयाग-प्रशस्ति में राजा को 'धनद्व ऋण ऐन्द्रान्त कसम' विशेषण का प्रयाग हुआ है, इसी प्रकार अर्थशास्त्र में राजा को 'इन्द्रयम स्थान' कहा गया है। अर्थशास्त्र में प्राचीन भारत के अनेक भौगोलिक क्षेत्रों एवं राजाओं का उल्लेख मिलता है, लेकिन कहीं पर भी मौर्य सम्राट चन्द्रगुप्त एवं उसकी राजधानी पाटलीपुत्र का वर्णन नहीं मिलता है। सम्भवतः यदि अर्थशास्त्र की रचना चन्द्रगुप्त मौर्य की शासन विधि हेतु की होती तो कहीं ना कहीं पर उसका एवं उसकी राजधानी के नाम का उल्लेख अवश्य मिलता।

कौटिल्य ने अर्थशास्त्र में यह मत प्रतिपादित किया है कि दुर्गों का निमाण प्राचीन प्रस्तरों द्वारा किया जाना चाहिए। वे लकड़ी द्वारा निर्मित दुर्गों की आलोचना करते हैं। परन्तु मौर्यों की राजधानी पाटलीपुत्र की खुदाई में लकड़ी द्वारा निर्मित दुर्गों के प्रचुर मात्रा में प्रमाण मिलते हैं।



यदि कौटिल्य चन्द्रगुप्त मौर्य का गुरु एवं प्रधानमन्त्री होता तो वह पाटलीपुत्र में लकड़ी का प्रयोग दुर्गों के निर्माण में कभी न करने देता। मौर्यकालीन भारत की शासन-पद्धति, सामाजिक जीवन और आर्थिक स्थिति के विषय में मैगस्थनीज एवं कौटिल्य द्वारा प्रदान की गई सुचनाएँ पूर्णतया भिन्न हैं। मैगस्थनीज ने पाटलीपुत्र में 30 सदस्यों को सभा का उल्लेख किया है, जिसकी 6 उपसमितियाँ प्रशासनिक कार्यों का संचालन करती थी और इसी प्रकार 30 सदस्यों की एक सभा सैन्य विभाग का संचालन करती थी। परन्तु कौटिल्य ने अर्थशास्त्र में किसी भी स्थान पर नगर-सभा एवं सैन्य-सभा का उल्लेख नहीं किया है। कौटिल्य के अर्थशास्त्र के अध्ययन से ज्ञात होता है कि उस समय धातु-उद्योग उन्नत था। लोगों को अनेक धातुओं की जानकारी थी और वे उनसे अनेक प्रकार की वस्तुओं का निर्माण करने में निपुण थे। परन्तु मैगस्थनीज ने अपने विवरण में दर्शाया है कि इस समय धातु उद्योग विकसित नहीं था।

कौटिल्य द्वारा रचित अर्थशास्त्र में चीन, नेपाल, बाहलीक, कपिषा एवं वनायु इत्यादि अनेक ऐसे देशों का उल्लेख मिलता है, जिनसे चौथी सदी ई०पूर्व के भारतीय परिचित नहीं थे। चीन का नाम प्राचीन राजवंश 'चिन' के नाम के कारण पड़ा था और 'चिन' राजवंश का उत्थान तीसरी शताब्दी ई०पूर्व में हुआ था। इसी प्रकार अन्य देशों से भी प्राचीन भारत के सम्बन्ध चौथी शताब्दी ई०पूर्व के बाद ही स्थापित हुए थे। अतः अर्थशास्त्र की रचना चौथी शताब्दी ई०पूर्व के बाद में ही हुई होगी। अर्थशास्त्र में जिस राज्य और उनके शासन के बारे में जानकारी मिलती थी, वो बहुत छोटा सा राज्य है और वह एक ऐसे युग को सूचित करता है, जब भारत में बहुत से छोटे-2 राज्यों की सत्ता थी और वे परस्पर संघर्ष में लीन थे। जबकि मौर्यों का साम्राज्य लगभग सम्पूर्ण भारत में फैला हुआ था।

उपर्युक्त विवरण में मैंने उन युक्तियों का उल्लेख किया है, जो कौटिल्य द्वारा रचित अर्थशास्त्र के मौर्य युग में विरचित होने के विरुद्ध दी जाती हैं। विन्टरनिट्ज, कीथ, जॉली और स्मिट्स इत्यादि ने इसे तीसरी सदी ई०पूर्व या उसके पश्चात् निर्मित माना है। परन्तु फ्लीट, जैकोबी, मेयर, श्री काशीप्रसाद जायसवाल, देवदत्त रामकृष्ण भण्डारकर, पाण्डुरंग वामन काणे, श्री

नीलकण्ठ षास्त्री इत्यादि इतिहासकारों का मानना है कि कौटिल्य ने अर्थशास्त्र की रचना मौर्यकाल में की और इसका काल भी चौथी शताब्दी ई०पूर्व का है। उन्होंने उपर्युक्त अर्थशास्त्र की रचना मौर्य युग में न होने के सम्बन्ध में दी गई युक्तियों

का निराकरण करते हुए निम्नलिखित युक्तियों का उल्लेख किया है, जो सि करती है कि अर्थशास्त्र मौर्य युग की रचना है और इसका सम्बन्ध चन्द्रगुप्त मौर्य से ही है।

यह सत्य है कि मौर्य कालीन अभिलेखों में राजा अशोक एवं दशरथ के नामों के साथ 'देवानं प्रियः' उपाधि का प्रयोग हुआ है। परन्तु अर्थशास्त्र में मौर्यकाल के किसी भी राजा एवं उसकी उपाधि का वर्णन नहीं है। 'देवानं प्रियः' उपाधि का सम्बन्ध मौर्यवंश के राजाओं के साथ न होकर बौद्ध राजाओं के साथ था। महावष में अशोक के समकालीन श्री लंका के राजा तिस्स या तिष्य के लिए भी 'देवानं प्रियः' उपाधि का प्रयोग हुआ है। चन्द्रगुप्त मौर्य के साथ इस उपाधि का प्रयोग नहीं हुआ है। कौटिल्य द्वारा रचित अर्थशास्त्र संस्कृत भाषा का ब्राह्मण धर्म पर आधारित ग्रन्थ है। अतः इस उपाधि का प्रयोग अर्थशास्त्र में न होना उचित है। मौर्य युग में अभिलेख भी पाली भाषा में ही उत्कीर्ण किये गये हैं। अशोक ने धम्म-घोष को जनता तक पहुंचाने के लिए आम-बोलचाल की भाषा पाली का ही प्रयोग करते थे। कौटिल्य ने अर्थशास्त्र की रचना राजाओं, मन्त्रियों एवं अमात्यों के मार्ग प्रदर्शन के लिए की थी, वे सभी सुषिक्षित थे। अतः पुरानी परम्परा के अनुसार चाणक्य ने भी अपने ग्रन्थ की रचना संस्कृत भाषा में की थी।

कौटिल्य द्वारा रचित अर्थशास्त्र की विचारधारा का प्रभाव दशकुमारचरित् एवं मुद्राराक्षस जैसे प्राचीन ग्रन्थों पर पड़ा। राजनैतिक और धर्मशास्त्र विषयक ग्रन्थों पर तो अर्थशास्त्र का प्रभाव स्पष्ट रूप से पड़ा है। इसी प्रकार समुन्द्रगुप्त की प्रयाग-प्रशस्ति अभिलेख पर अर्थशास्त्र का प्रभाव पड़ना स्वाभाविक है।

यह भी पूर्ण रूप से सत्य है कि कौटिल्य ने अर्थशास्त्र में चन्द्रगुप्त एवं पाटलीपुत्र का उल्लेख नहीं किया है। परन्तु यह नहीं कहा जा सकता कि कौटिल्य का इनके साथ कोई भी

सम्बन्ध नहीं था। अर्थशास्त्र राजनतिक सिद्धान्तों का वैज्ञानिक ग्रन्थ है। इसमें संस्मरणों एवं गजेटियर का वर्णन नहीं है। इसमें जिन राजाओं के नाम का उल्लेख है, वो सिद्धान्त के रूप में है और जिन स्थानों का उल्लेख हुआ है, वो किसी वस्तु या व्यापार के दृष्टिकोण से महत्वपूर्ण है। राजा को काम, क्रोध, लोभ, मोह, मद और हर्ष को त्याग कर इन्द्रियजयी होना चाहिए का निरूपण करते हुए भोज दाण्डक्य, वैदेह कराल, जनमेजय, अजबिन्दु इत्यादि राजाओं का उल्लेख किया है। पर चन्द्रगुप्त के नाम का कोई भी प्रसंग इस शास्त्र में नहीं है, फिर भी अर्थशास्त्र में 'तेन गुप्तः प्रभवित' का उल्लेख मिलता है। गुप्त का समीकरण चन्द्रगुप्त मौर्य से करना असंगत नहीं है। कलिंग एवं अंग हाथियों, काषी सूती कपड़ें, नेपाल कम्बल एवं कम्बोज घोड़े के लिए प्रसिद्ध थे। अतः इन्हीं का नाम ही अर्थशास्त्र में उल्लेखित है। मगध का उल्लेख की पत्थर तोलने के बड़े बनने के लिए प्रसिद्ध था। मौर्य साम्राज्य में बने समस्त दुर्गों का निर्माण चाणक्य की सम्मति से किया जाये, यह सम्भव नहीं है। पाटलीपुत्र की खुदाई से जो लकड़ी के षहतीर एवं कड़िया मिली है उनका प्रयोग दुर्ग निर्माण के लिए किया गया हो यह भी सर्वसम्मत नहीं है।

इसमें कोई सन्देह नहीं कि चन्द्रगुप्त मौर्य के काल में पाटलीपुत्र, तक्षशिला, उज्जैन और कौषाम्बी जैसे नगरों में 'पौर' सभाओं की सत्ता थी। परन्तु मैगस्थनीज ने केवल पाटलीपुत्र की पौर सभा का उल्लेख अपने विवरणों में दिया है। कौटिल्य ने स्थानीय स्वशासन संस्थाओं का उल्लेख नहीं किया अपितु देश, ग्राम जाति एवं कुल आदि को संघ की संज्ञा देकर उनका उल्लेख किया है। नगरों के शासन में राजा या केन्द्रिय शासन का क्या कर्तव्य है, इसका उल्लेख कौटिल्य के अर्थशास्त्र में किया है। मैगस्थनीज ने 30 व्यक्तियों की सभा एवं 6 उपसमितियों की सैनिक प्रबन्ध के लिए अपने विवरण में उल्लेख किया है, उसकी सत्यता व प्रामाणिकता भी संदिग्ध है। पत्याध्यक्ष, अष्ठाध्यक्ष, रथाध्यक्ष आदि के रूप में इन विभागों की सत्ता कौटिल्य द्वारा भी सूचित की गई है।

यह तथ्य पूर्णतया ठीक है कि मौर्यकाल में भारतीय द्यातुओं को षुद्ध करने तथा उनसे विविध प्रकार की वस्तुओं का निर्माण करने में निपुण थे। परन्तु मैगस्थनीज ने दरदई लोगों के



प्रदेश का वर्णन करके लिखा है कि वे द्यातु पिघलाने एवं षुद्ध करने की कला नहीं जानते थे। परन्तु इससे यह निष्कर्ष नहीं निकाला जा सकता है कि मौर्य युग में सभी भारतीय इस कला से अनभिज्ञ थे। जायोडोरस के विवरणों के अनुसार भारत में इस काल में सोना, चाँदी, ताम्बा और लोहा प्रचुर मात्रा में मिलता है और वे इनको पिघालकर एवम् षुद्ध करके आभुषण हथियार, युद्ध का साज-सम्मान तथा अन्य वस्तुओं का निर्माण करने में निपुण थे। कौटिल्य ने भी इस कथन की पुष्टि की है। कौटिल्य ने अर्थशास्त्र में चीन, नेपाल, बाहलीक, कपिषा, वनायु आदि देशों का वर्णन किया है। कुछ विद्वान मानते हैं कि चौथी सदी ई०पू० में भारतीयों को इन देशों का ज्ञान नहीं था। परन्तु यह सत्य नहीं है। चीन में चिन सत्ता का उत्कर्ष लगभग 722 ई०पूर्व में माना जाता है।

ईरान और बेबीलोनिया जैसे पश्चिमी देशों से हमारे व्यापारिक सम्बन्ध प्राचीन समय से ही है। असीरिया के राजा सेन्नाचरीब ने 700 ई०पू० में हमारे देश के कपास के पौधे लेकर अपने देश में लगाए थे। ईरान के हखामनी वंश के शासक दारयबहु प्रथम ने सिन्ध के आस-पास के क्षेत्रों पर अपना आधिपत्य स्थापित किया था। इसकी पुष्टि हैरोडोटस के विवरणों से भी होती है। सिकन्दर के आक्रमण से पूर्व भारत के व्यापारी समुन्द्र मार्ग से ईरान, बेबीलोन आदि देशों से व्यापार करते थे। इस दशा में यह सत्य है कि अर्थशास्त्र की रचना चौथी सदी ई०पूर्व में ही हुई थी।

यह पूर्णतया सही है कि अर्थशास्त्र में छोटे-2 संघीय रूपी गणतन्त्रों का उल्लेख मिलता है। कौटिल्य तक्षशिला में आचार्य का कार्य करते थे और चन्द्रगुप्त मौर्य वहां शिक्षा प्राप्त करता था। सिकन्दर ने भारत आक्रमण के दौरान उत्तर-पश्चिमी और पश्चिमी भारत के लगभग 28 गणराज्यों से सम्पर्क हुआ था। इनके शासक अपने गण के साम्राज्य के विस्तार में लीन रहते थे। अतः इनका उल्लेख अर्थशास्त्र में होना स्वाभाविक है। कौटिल्य ने अपने ग्रन्थ में जिस दण्डनीति का प्रतिपादन किया है, वह भारत की परम्परागत राजनीति थी और स्वाभाविक रूप से उसके प्रतिपाद्य विषय जनपद थे। पन्तजलि के महाभाष्य में कौटिल्य या चाणक्य का नाम न आने से यह नहीं कहा जा सकता है कि दूसरी सदी ई०पू० से पहले इस नाम का कोई व्यक्ति न हुआ है।

महाभाष्य एक व्याकरण का ग्रन्थ है, न कि इतिहास-ग्रन्थ व पुराण। इसमें व्याकरण के नियमों को स्पष्ट किया गया है। अतः उसमें जिन ऐतिहासिक पुरुषों का नाम न आये हो, उनकी सत्ता से इन्कार करना सही नहीं है।

कौटिल्य द्वारा रचित अथषास्त्र में 'इति कौटिल्य' कहकर चाणक्य या कौटिल्य के मत को प्रतिपादित किया गया है, यह सही है, परन्तु इससे यह परिणाम नहीं निकाला जा सकता है कि इसकी रचना चाणक्य या कौटिल्य ने नहीं की है। अपितु यह तो प्राचीन भारत की लेखन शैली है, जिसे वात्स्यायन ने कामसूत्र में और राजषेखर ने काव्य-मीमांसा में भी इस शैली को अपनाया है।

इन समस्त युक्तियों से यह निष्कर्ष निकाला जा सकता है कि अथषास्त्र की रचना कौटिल्य ने चौथी शताब्दी ई0पूर्व में की और कौटिल्य चन्द्रगुप्त मौर्य के गुरु एवं प्रधानमन्त्री थे। इस आचार्य द्वारा दण्डनीति या अर्थषास्त्र विषयक एक ग्रन्थ की रचना की गई। कौटिल्य अर्थषास्त्र की अन्तः साक्षी द्वारा भी यही जानकारी मिलती है कि इस ष शास्त्र के रचियता वही चाणक्य थे, जिन्होंने नन्दराज का विनाश करके चन्द्रगुप्त मौर्य को मगध का सम्राट बनाया था।

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# E- MARKETING: GROWTH AND CHALLENGES IN INDIAN PERSPECTIVE-A STUDY

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## **Abstract**

Marketers have been using electronic tools for many years, but the internet and other information technologies created a flood of interesting and innovative ways to provide customer value. The more the Internet settles into mainstream business, the more it spawns innovation and more change. Electronic marketing is the youngest of the membership growth devices and has grown tremendously since mainstreaming a little more than two decades ago. E-marketing is traditional marketing using information technology but with some twists. The marketing transformation results in new business models that add customer value, build customer relationships, or increase company profitability. This in turn created a virtual market for actual products globally. This paper focuses on the opportunities and the challenges in the process of e- marketing. Evolution of e - Marketing has been one of the most important and influential trends in the field of business, marketing and information technology over the recent years. E Marketing helps selling of goods and services using digital technologies. These technologies are creating a competitive advantage to the brands and companies while the traditional marketing methods are still followed. The basics of marketing remain the same - creating a strategy to deliver the right information to the right people at the right time.

**Keywords-:** Challenges, E-marketing, barriers, technology, customer's relationship, evolution

## **INTRODUCTION**

Before the term e-marketing evolved, the term digital marketing was used in the 1990s. It is often referred to as "online marketing", "internet marketing", or "web marketing". Technically speaking, the Internet is a global network of interconnected networks. In this context, E-marketing is the use of information technology in the process of creating, communicating and delivering value to customers and for managing customer relationships in ways that benefit the organization and its stakeholders. E-marketing is the application of a broad range of information technologies for-



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- 1) Transforming marketing strategies to create more customer value through more effective segmentation, targeting, differentiation and positioning strategies.
- 2) More efficiently planning and executing the conception, distribution, promotion, and pricing of goods, services, and ideas, and
- 3) Creating exchanges that satisfy individual consumer and organizational customers' objectives.

The rapid growth of the web, subsequent bursting of the dotcom bubble and current mainstreaming of the Internet and related technologies created today's climate of marketing Convergence: the comprehensive integration of e-marketing and traditional marketing to create seamless strategies and tactics.

## REVIEW OF LITERATURE

An extensive literature review is done on the concepts and theories related to E-marketing. Several Industry experts, researchers and businessmen expressed their view on E-marketing as a powerful strategy in attracting the customers. The following are the opinions of different experts.

**N.S. Muthukumaran, Director, Online Research, The Nielsen Company, India:** -By online media almost no aspect of life remains untouched. As our lives become busier and cluttered, when it comes to researching and buying products isn't surprising that consumers turn to the matchless, convenience of the Internet. The Online shoppers tend to stick to the shopping sites they are familiar with. Capturing the online shoppers early and creating a positive shopping experience for them would prove beneficial in the long run for marketers.

**Dr Subhas Ray, President, IAMAI-** Consumer e-commerce is a major driver of the economy and we are happy that it has achieved a very decent size in India. It is perhaps the only sector which has operated under, sometimes, hostile and at all other times indifferent policy environment.

## Objective of the study

1. To know the benefits of e-marketing.
2. To identify the barriers in growth of e-marketing.
3. To know about the challenges of e-marketing.
- 4.

## Research Methodology

- Data Source Used: Secondary Data. The present study is based on secondary data. Basically, the required information has been derived from
  1. Various books, Articles from Newspapers, Magazines and journals, and
  2. From the various related web-sites which deals directly or indirectly with the topic.

## **E-MARKETING HAS AT LEAST FIVE GREAT BENEFITS**

1. Both small and large firms can afford it.
2. There is no real limit on advertising space, in contrast to print and broadcast media.
3. Information access and retrieval are fast, compared to overnight mail and even fax.
4. The site can be visited by anyone from any place in the world.
5. Shopping can be done privately and swiftly.

## **E-MARKETING PROVIDES A NUMBER OF BENEFITS TO MARKETERS:**

1. Quick adjustments to market conditions: Companies can quickly add products to their offering and change prices and descriptions.
2. Lower costs: On-line marketers avoid the expense of maintaining a store and the costs of rent, insurance, and utilities. They can produce digital catalogues for much less than the cost of printing and mailing paper catalogues.
3. Relationship building: On-line marketers can dialogue with consumers and learn from them.
4. Audience sizing: Marketers can learn how many people visited their on-line site and how many stopped at particular places on the site. This information can help improve offers and ads. Clearly, marketers are adding up on-line channels to discover, attain, communicate, and sell.

## **E-MARKETING PROVIDES A NUMBER OF BENEFITS TO BUYERS:**

1. Convenience: Customers can order products 24 hours a day wherever they are. They don't have to sit in traffic, and a parking space, and walk through countless shops to find and examine goods.
2. Information: Customers can find reams of comparative information about companies, products, competitors, and prices without leaving their office or home.
3. Fewer hassles: Customers don't have to face salespeople or open themselves up to persuasion and emotional factors; they also don't have to wait in line.

## **PROBLEM FACED WHILE USING E-BUSINESS**

While India's Internet adoption rate has been projected to grow rapidly significant barriers limit the growth of future adoption and e- business. A report conducted by Nasscom and Boston Consulting group outlines the following barriers:-

- 1) PCs and other devices to access the Net for individuals are less than 1%.
- 2) Telephone line penetration is limited to less than 3%of the population.
- 3) Poor telecom and communication infrastructure for reliable connectivity.
- 4) Internet connectivity is very slow and access costs are still very high.
- 5) High legal and regulatory barriers.



## CHALLENGES IN THE E-MARKETING

### Problem of integration

one of major problems with marketing campaigns is that they take up several offline and online promotional channels such as press, brochure, catalogue, TV, cell phone, e-mail, internet, social media etc, while lack a comprehensive, harmonizing marketing structure. Each item is used separately and accomplished as a different task not as a part of an integrated campaign aiming at the realization of specified and particular objectives. This deficiency can be compensated for by taking a holistic come up to which synchronizes the different traditional and internet age modes of marketing communication as moments of an integrated organization. With respect to the practical, online component of an integrated marketing what is "also worth noting (or reminding) is that like offline marketing, all aspects of online marketing are inextricably connected- and in many cases mutually dependent.

### Lack of face-to-face contact

Internet dealings involve no alive, personal interaction and that is why some customers consider electronic modes of providing customer service impersonal and enjoy the experience of shopping in a bricks and mortar, physical store. They like better to talk to store personnel in a face to face conduct, touch the related product with their hands, and socialize with other customers. Virtual marketplace cannot provide for this function of offline shopping and lacks personal interaction. To be more specific "for the types of products that rely heavily on building personal relationship between buyers and sellers such as the selling of life insurance, and the type of products that requires physical examination, Internet marketing maybe less appropriate.

### Security and Privacy

It is clear enough that now a days customers' data can easily be shared with other companies without asking for their authorization. Moreover their more crucial personal data such as usernames and passwords are not protected from hackers (Lantos, 2011: 74).

### Lack of trust

"online trust includes consumer perceptions of how the site would deliver on expectations, how believable the site's information is, and how much confidence the site commands" (134). These days in spite of the rapid growth of online dealings a number of people still suspect electronic methods of paying and still have doubt whether the purchased items will be delivered or not. On the other hand, occurrence of online fraud has made customers hold negative or doubtful attitudes towards online transactions.

## CONCLUSION

In the future, consumer control, improved strategy integration, refined metrics, increase wireless networking, receiving appliance convergence and the semantic web will change the marketing landscape. This paper discussed the growth and the challenges in the ever-expanding area of e marketing. This field needs constant learning. One cannot overlook the fact that it is a technology driven approach. There is a dire need to keep abreast of the latest in the field of computer science and information technology. Poorly created and executed programs create mistrust between clients and marketers. Spam, identity theft, intrusive advertising, technical snags, not keeping terms with contract / agreements, gap between ordered products and actual deliveries have



created deep mistrust in e marketing. Hence the growth of e-marketing depends also on the growth of business ethics on the one hand and consumer protection laws on the other. In other words, the relevance of 'credibility' in business in general and marketing in particular is mammoth which can be addressed with skill development in the field of information technologies. While one has to adopt caution, e marketing offers a world of opportunities. This understanding opens the door for many new product opportunities that provide value to demanding customers of the future.

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# Technology in Indian Banking Services-A Study

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## Abstract:

Over the years, the Indian Banking Sector has seen a number of changes. Most of the banks have begun to take an innovative approach towards banking with the objective of creating more values to the customers and consequently the banks.

Information Technology (IT) has introduced new business paradigms and is increasingly playing a significant role in improving the services in the banking industry. E-Banking enables the customers to carry out most of their banking transactions using a safe website which is operated by respective banks. Various Innovations in Banking and Financial Sectors are ECS, RTGS, NEFT, EFT, ATM, Retail Banking, Debit and Credit cards and many more. With the emergence of Liberalization, Privatization and Globalization (LPG) in India, Banks are focusing on Research and Development and applying various innovative ideas and technology in their industry. There is a close relationship between the development of banking sector and the new technological and Electronic data processing innovations. The paper aims to explore some important and popular IT enabled services of banking institutions, its benefits & issues at present and their future prospects as well as the advancement of banking sector by information technology.

**Keyword: Information technology, ATM, Internet Banking, Mobile Banking, Fund Transfer India, Banking Sector, New Technological Changes.**

## Introduction

The changes after economic Liberalization, Privatization and Globalization (LPG) process, initiated since 1991, have significant impact on the financial institution. Information Technology (IT) revolution is of entire changing the way financial business is done and has considerably widened the range of products and increased the expected demands of the customers. Financial sector reforms and banking sector reforms are the part and parcel of economic reforms, which strengthen the economic reforms. IT Act of 2000 gave new dimension to the Indian financial sector. IT has created transformation in banking sector, banking structure, business process, work culture and human resource development. It affected the productivity, profitability and efficiency of the banks to a large extent. Strengthening the financial sector and improving the functioning of financial markets have been the core objective of the financial sector reforms. It was in June 1999 that an IT revolution actually appeared in the Indian financial institutions specially banking sector when the world of IT seemed too wide open with introduction of Indian Financial Network. This Indian Financial Net included a wide area satellite based network, which used Very Small Aperture Terminals Technology. The Reserve Bank of India jointly set it up with the Institute for Research & Development in Banking Technology. The Indian Financial Network initially comprised only the public sector banks but was later on opened up for participation by other categories of members including foreign banks as well. It was the payment system, which was the first segment of banking system, benefited a lot from the introduction of the new technology. This segment being the lifeline of a bank was later on fully mechanized with the introduction of Automated Teller Machine (ATM), This facility was further enhanced by the internet facilities such as ECS, RTGS, NEFT, EFT, Retail Banking, Debit and Credit cards and many more, which was also significantly influenced delivery channels of the banks. Internet has emerged as an important medium for delivery of banking products and services. The IT Act, 2000 provides the electronic data to be treated as a valid proof in a court of law in most of the cases except those cases, which continue to be governed by the provisions of the Negotiable Instrument Act, 1881. RBI has also stressed the implementation of centralized funds management system, which facilitates centralized viewing of balance positions of the account holders across different accounts maintained at various locations of Reserve Bank of India. This process was divided in two parts. The first part made the centralized funds enquiry system available to the customers and the second part arranged for a centralized funds transfer system by the end of 2003. In order to enhance the information security on network, Government



of India has approved the Institute for Development and Research in Banking Technology as Certification Authority for digital signatures. Electronic funds transfer is being enhanced in terms of security by means of implementation of digital signatures using the facilities offered by the certification authority. Further recognizing the need for technology based payment products a pilot project for multi application smart cards in combination with a few banks, under the guidance of the Ministry of Communications and Information Technology, Government of India, has been initiated. All this technological advancement has changed the face of Indian Banking System. Banking environment has become highly competitive today. To be able to survive and grow in the changing market environment, banks have introduced the latest technology.

The Indian Banking has finally worked up to the competitive dynamics of new Indian market and its relevant issues concerning the various challenges of Globalization. IT has helped the Banking industry to deal with the challenges the new economy poses. Technology has opened up new markets, new products, new services and efficient delivery channels for the banking industry. Few examples are such as Online Banking, Mobile Banking and Internet Banking. The progress of technology and development of worldwide have significantly reduced the cost of global fund transfer. The IT revolution has set the stage for unprecedented increase in financial activity across the globe.

### Literature Review

**Awasthi & Sharma** [1] reveals that the advancement in technology are set to change the face of the banking business. Technology has transformed the delivery channels by banks in retail banking. **Janki** [2] analyzed that how technology is affecting the employee's productivity. There is no doubt technology has changed the operating efficiency and customer services. The focus on technology will increase new products, strengthen risk management etc. The study concluded that Technology is the only tool to achieve their goals. **Rao** [3] reveals the impact of new technology on banking sector. The technology is changing the way the business is done and open new vistas for doing the same work differently in most cost-effective manner. Tele banking and internet-banking are making forays such that branch banking may give to honor banking. **Bhasin** [4] analyzed the impact of IT on financial sector. It has transformed the repetitive and overlapping systems and procedures, into simple single key pressing technology resulting in speed, accuracy and efficiency of conducting business and enabling them to enter into the new activities. **Sabnani** [5] analyzed the importance of Universal Banking in India. The developments in IT and telecommunications are allowing international pooling of financial resources thereby spreading the risk across more than one market. He feels that Universal Banking System will increase in India. **Vageesh** [6] highly appreciated the new private sector banks which have adopted IT. The new private sector banks with their state-of-the-art technology and grandiose plans to make inroads into e-Banking. Banks are foraying into net banking offering great convenience to the customers on one hand and results in lower transaction cost for the banks cost for the banks on the other hand. **Verma** [7] analyzed the impact of IT on public sector banks and new private sector banks and observed that IT is a threat for public sector banks whereas strength of new private banks. New private banks are fully computerized and providing services on internet, especially ICICI Banks and HDFC Bank very active on this front and concentrating on Internet and e-Commerce to offer the clientele a whole range of products under one roof. Public sector banks have to do a lot on improving the productivity and efficiency. **Arora** [8] highlighted the significance of bank transformation. Technology has a definitive role in facilitating transactions in the banking sectors and the impact of technology implementation has resulted in the introduction of new products and service by various financial institutions in India.

### Objective of the Study

The Objectives of the present paper are:

1. To study the rapid advancement occurring in the banking sector.
2. To analyze the performance of existing technology based products offered by the banks in India and its future prospects.



## Methodology

The present review paper is based on the Secondary data. It analyses the available literature on Banking technology and various existing and upcoming innovative products offered by Indian Banks. The Secondary data pertaining to the study was obtained from the various journals, books, newspapers and websites of the concerned Banks.

## Theoretical Framework

Banking sector plays an important and crucial role in the development of Indian economy. With the use of technology, there had been an increase in penetration, productivity and efficiency of banking practices. It has not only increased the cost effectiveness but also has helped in making small value transactions feasible. Many researchers have given their views on the innovation in the services. Many researchers have given their views on the innovation in the services. Bhosle and Sawant in research paper, "Technological Developments in Indian Banking sector" discussed the role and concept of banking sector in the development of Indian economy. This paper highlights that the technology allows taking place faster and offering unparalleled convenience through various delivery channels like MICR, CTS, RTGS, and NEFT etc. Avasthi and Sharma (2000) in their study have analyzed that advances in technology are set to change the face of banking business. Technology has transformed the delivery channels by banks in retail banking. The study has also explored the challenges the banking industry and its regulator faces. Arora (2003) in his study highlighted the significance of banking transformation. Technology has a definite role in facilitating transactions in the banking sector and the impact of technology implementation has resulted in the introduction of new products and services by various banks in India. Mangnale, Chavan and Randive, in their research paper "E-CRM in Indian Banking Sector, Golden Research Thoughts" analyzed in their study that technology, people and customer are the three elements on which depends the whole success of banking in the fast changing economic environment. This paper analyzes the concept of e-CRM in Indian banks from its various dimensions covering specifically the needs, present status and future prospects. Models using mobile devices and efficient payment systems will make banking services widely available 24 x 7. The various technological platforms provided by the banks to their customers bring greater flexibility and operational convenience by providing computerized banking environment, speedier transactions, accurate statements, ATMs offering 24 hours banking, Mobile banking, Internet banking; anywhere and at anytime. Customer terminals are proved to be a milestone in the development and growth of banks.

## Technology and Innovations in Banking

Banking environment has become highly competitive today. Developments in the field inclusive of information technology strongly support the growth and inclusiveness of the banking sector by facilitating inclusive economic growth. IT improves the front end operations with back end operations and helps in bringing down the transaction costs for the customers. Major events in the field of IT in banking sector in India are:

- Introduction of ATMs in 1987.
- Card based system in late 1980's and 90's.
- Electronic Clearing Services (ECS) in early 1995
- Electronic Funds Transfer (EFT) in early 2000.
- Introduction of RTGS in 2004.
- National Electronic Fund Transfer (NEFT) in 2005 by replacing EFT.
- CTS in the year 2008.
- The Payment and Settlement Systems Act passed in December 2007.

## Automated Teller Machines (ATM)

ATMs were introduced to the Indian Banking industry during 1987 by HSBC Bank in Mumbai. With the advent of ATMs, banks are able to serve the customers outside the banking halls. Now the ATMs are equipped with modern technologies and facilitate various features for its customers which includes Bill payments, ticket booking, Mobile recharges, Ubiquitous multifunction, ATMs biometric, Multilingual ATMs and ATM network switches. The number of ATMs in India is growing at a brisk pace. ATM segment witnessed a growth



45.44% for the period from 2012-2019. According to available data the number of ATMs which were 92,455 in 2012 is increased to 2,03,458 in January 2019, which is a good sign for whole industry.

### **Card Based System (CBS)**

Among the Card based delivery mechanisms for various banking services, are Debit Cards and Credit Cards. The amount of Debit Card transactions increased rapidly which was Rs.469.1 million in year 2012-2013 and Rs.808.1 million in year 2014-2015, whereas the amount of Credit Card transactions was Rs.396.6 million in year 2012-2013 and Rs. 615.1 million in the year 2014-2015.

### **Electronic Clearing Services (ECS)**

ECS introduced by RBI in 1995, similar to Automated Clearing house system. ECS has two variants i.e. ECS Debit clearing services and Credit clearing services. ECS Debit operates on the principles of single credit multiple debits and is used by utility service providers for collection of electricity bills, telephone bills and other charges and also by banks for collection of principal and interest repayments. ECS Credit handles bulk and repetitive payment requirements of corporate and other institutions and is used for transactions like payment of salary, dividend, pension, interest etc.

### **Electronic Fund Transfer (EFT)**

The EFT system enables an account holder of a bank to electronically transfer funds to another account held with any other bank. The most widely used EFT programs is Direct deposits, in which payroll is deposited straight into an employee's bank account, although it transfers the funds through an electronic terminal including Credit card, ATM and Point of Sales (POS) transactions.

### **REAL TIME GROSS SETTLEMENTS (RTGS)**

The introduction of RTGS in 2004 was instrumental in the development of infrastructure for Systematic Important Payment System (SIPS) and it settles all interbank payments and customer transactions above Lakhs. RTGS was launched by RBI, which enabled a real time settlement on a gross basis. To ensure the RTGS system is used only for large value transactions and retail transactions take an alternate channel of EFT. The reach and utilization of RTGS has witnessed a sustainable increase since its introduction. In the year 2013 to 2018-2019 transactions related to customer remittances have raised. This shows the increasing popularity of RTGS in Indian banking industry.

### **National Electronic Fund Transfer (NEFT)**

New and improved variant of EFT was implemented in November 2005 to facilitate one to one fund transfer requirement of individuals as well as corporate. It uses the Structured Financial Messaging Solution (SFMS) for EFT message creation and transmission from the branch to the banks gateway and to the NEFT centre, so it can transfer the funds with more security. With the SFMS facility, branches can participate in both RTGS and NEFT System. Using the NEFT infrastructure, a one way remittance facility from India to Nepal has also been implemented by the RBI since 15 May, 2008.



### Innovative Products and Policies of Banks

- “My Saving Rewards”, the programme allow customers to accumulate reward points on a host of saving account transactions such as bill pay, online shopping, EMI payment etc.
- 24x7 fully electronic branches are opened to undertake real time transactions by the customer.
- “E-Locker”, an online service for storing important documents for privilege banking customers.
- UID authentication for Aadhar based payments and enabling corporate to pay taxes online.
- Cash Deposit Machines (CDMs) are installed for cash deposits by customers at these machines by using the ATM cum Debit card.
- E-trade SBI, a web based portal launched in March 2011 to access trade finance services with speed and efficiency.
- To facilitate the Electronic Benefit Transfer (EBT) scheme for routing MGNREGA where all scheduled commercial banks were instructed to open Aadhaar enabled bank accounts of all the beneficiaries.
- Expansion of branches in remote locations either through a bank branch or Business Correspondence (BC) or other modes so that every eligible person should have a bank account.
- Know Your Customer (KYC) norms simplified to facilitate financial inclusion and customer services.
- The RBI is replacing the existing RTGS with a new NG-RTGS system which includes which includes few extra features like advanced liquidity management facility, Extensible Mark up Language (XML) based messaging system etc.
- Recently launched scheme of government “Jan Dhan Yojana” with the motive that every family must have bank account
- Today, the banks installed Solar ATMs, windmills to fulfill their own energy needs, paperless banking etc. SBI is the largest deployer of Solar ATMs.

### Conclusion

The transformation in banking services is providing various advantages to customers with anytime, anywhere access to their accounts as well as power to operate their accounts. Although the change is good but still banks in India are required to address the important issues to get the full benefits of information technology implementation. IT has introduced new business paradigms and is increasingly playing a significant role in improving the services in the banking industry. E-Banking enables the customers to carry out most of the banking transactions using a safe website which is operated by respective banks. Various Innovations in Banking and Financial Sectors are ECS, RTGS, NEFT, EFT, ATM, Retail Banking, Debit and Credit cards and many more. With the emergence of Liberalization, Privatization and Globalization (LPG) in India, Banks are focusing on Research and Development and applying various innovative ideas and technology in their industry. There is a close relationship between the development of banking sector and the new technological and Electronic data processing innovations.

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# Consumer Awareness Towards Mobile Number Portability In Haryana - A Study

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## ABSTRACT

Mobile number portability (MNP) is a process that allows users to choose desired network or service provider. MNP is a new but a fast growing trend in the world of mobile service. In the modern age it attracts more and more and now becoming a mass revolution in the field of mobile network. This paper examines the consumer awareness and procedures followed for mobile number portability and try to find reasons for switching the service providers. The present study used exploratory as well as descriptive research designs. The data were collected from the all four divisions of Haryana state namely Hisar, Rohtak, Gurgoan and Ambala by using stratified sampling. The collected data was analyzed using different statistical techniques. SPSS (18.0 version) software was used to compile all observations and analysis of data. For content analysis, sources like newspapers, journals, articles, books, social sciences journals, professional literature and internet search were used. Result suggest that respondents are not only aware about the MNP but they also know the procedure of using MNP and network coverage, customer care, quality of service are the main factors to switch over another service provider Portability benefits subscribers and increases the level of competition between service providers, rewarding service providers with the best customer service, network coverage, and service quality.

**Keywords:** Mobile Number Portability, Mobile Service Provider, Mobile Network Operator

## Introduction

Today communication is one of the gifts for man. Communication helps in acceleration of growth of economy by transmitting information and simplifying motivation. Communication has been playing a vital role in man's life from time memorial. Invention like Telephone, Radio, Television and computer made a tremendous change in the world. The first telephone was introduced by Alexander Graham Bell, out of a wooden stand, a funnel, a cup of acid and a copper wire. The concept of wireless telephone came in mind in-1970, after Second World War. In 1979 the first commercial cellular telephone system began operation in Tokyo. It is one of the greatest achievements of late 20th Century. Its purpose is to provide universal connectivity and increase efficiency and productivity in all sectors. This system is bringing a major change in the world Scenario and transforming world in to global village. Mobility helps one to send and receive information anytime, anywhere and make one to keep up the place in the competitive world.

## Tele Communication Medias in India

Tele communication Medias in India have been laying a phenomenal role in the dimensions development activities. Satisfactory functioning of telecommunication network is an essential component of the economic infrastructure. The application of modern marketing principles in the telecom Medias would pave the way for a generation of profits and would certainly make these telecom services quite affordable to the consumers at large.



## History of Mobile Phones

Mobile phone technology began in 1947. The theory was that, a person could use a cordless type communications device by transferring the communication signal wave from one base station to the other. This meant limitless accessibility to the user and he or she could travel as per as communication station would allow. Unfortunately, the technology to do so did not exist at the time.

As technology moved forward, so did the concept of making the mobile phone theory a reality. With limited frequencies as supplied to companies by the FCC (The governing body of airwaves) as companies room began to offer selected wireless service in selected areas. As time passed, eventually we get to where we are today- wireless phones are everywhere.

Today the mobile phone towers that governs our airwaves can be seen in every town, city and off of every major road ways. They are the link that is needed to triangulate the signal we use every time we make a call. Naturally with such ever changing technology, future of the mobile phone is limitless.

## Literature Review

The phenomenal growth of mobile telephony in India has given the Indian telecommunication sector a high visibility in the media. Many newspaper and magazine articles highlight this growth, and report its segment-wise distribution. MNP in particular has received great media attention. However, not many formal studies have been undertaken on issues related to the Indian telecommunications sector. **Stefan Buehler (2007)** examines the consequences of introducing mobile number portability (MNP). As MNP allows consumers to keep their telephone number when switching providers, it reduces consumers' switching costs. However, MNP may also cause consumer ignorance if telephone numbers no longer identify networks. **Suthar (2012)** studied on consumer behavior after mobile number portability with reference to Gujarat telecom circle and reflected on mobile phone user's perception and switching barriers that discouraged them from switching operator. **Jha (2008)** suggested that it is the youth which is the real growth driver of the telecommunications industry in India. His study examined how demographics influenced the usage pattern of mobiles. **Robins (2008)** highlighted the issues in marketing the next generation of mobile telephones, viz. "3G". The first is related to the pricing of 3G handsets and services, given the high licensing fees. All variants of 3G remain dependent on largely unproven technology. He pointed out that marketing of 3G would be of high risk. First, 3G has no obviously unique selling proposition to build on except, perhaps, the combination of live video and easy portability. Second, the potential customers have not yet had adequate opportunity to signal their service likes and dislikes. Third, the cost and complexity of service provision leave doubt about the market's reaction to price.

**Bhatt (2008)** analyzed the perceptions of students on the usage, necessity, and spending on mobile phones. He also compared the students' perspectives on the different mobile handset companies and mobile service providers. **Kapoor (2009)** reported that business subscribers mostly from the postpaid category are more likely to shift their service providers' gears, while the prepaid, low and medium spenders are not likely to be motivated to switch. He suggested that, as the market grows and hyper-competition takes effect, retention of the right type of customers will become critical. He also argued that there is a powerful opportunity for operators to drive in-bound porting of high-value subscribers, provided that they have a good understanding of who is more likely to switch. Satisfaction scores on network quality dropped for almost all operators, with Airtel, BSNL and Reliance registering the greatest drops. He suggested that loyalty to operators is seen to be higher among lower socio-economic groups, older age groups, and among females.

**Yadav (2013)** studied "Effects of Mobile Number Portability in Telecom Sector - A Case Study of Idea Cellular Ltd", and figured out the impact of mobile number portability on service providers and service users with the effect on sale of IDEA and strategies adopted to retain and attract customers by IDEA cellular limited.



## **MNP Background**

The Indian Telecom industry is the fastest growing industry in the world today and Mobile Number Portability (MNP) has added to its success and growth. MNP process allows free choice of mobile operator by the subscriber. It has elevated the level of open competition amongst mobile network operators. This has left operators with no choice but to improve on quality of services and customer satisfaction. On the other hand, industry is gaining more faith as customers are no more dependent on to a single operator for their mobile number. After many delays and trial runs in Haryana, MNP was finally launched in January 2011 by Prime Minister Dr. Manmohan Singh and Telecom Minister Mr. Kapil Sibal.

MNP process was piloted in India in November 2010 and was extended to whole country in January 2011. As per the data from TRAI, 2.3 million mobile phone subscribers requested for mobile number portability in the month of August 2013 alone. To add, TRAI says 100 million mobile phone customers have already raised the request till August 2013. Mobile number portability that has been successful in many parts of the world for over a decade now not only offers the user the option to decide his/her network while retaining their number, it also provides opportunities for network operators to fascinate existing customers to their network by providing better services. Although, the movement is yet to pick up in India, in other parts of the globe, mobile operators usually offer some freebies to customers porting in to their network, while the service is also available for free and is finished in as quickly as 15-20 minutes. On the other hand, subscribers in India, have to pay a small fee of Rs. 19, if they wish to port their number to another network and often wait for around 7 days to successfully move to another operator.

## **Statement of the Problem**

In our country the growth of service marketing especially mobile phone industry is still in its infancy stage, as compared to the industrially advanced countries. It is for the fact that the economy of our country has been in the developing stage. There are various mobile phone industry mainly depends on the customer satisfaction. With the arrival of MNP, competition will increase dramatically and markets historically dominated by a single player will see increased fragmentation. It is evident that service providers with better choices and offers will benefit from this new reality. The study is undertaken to gain insight about the awareness level of MNP facility among the customers, factors influencing their porting decision and to analyze the customer's satisfaction after availing MNP.

## **Objectives of the Study**

1. To identify customer awareness about mobile number portability.
2. To identify the reasons for the switching the service provider.
3. To identify the customer satisfaction on MNP
4. To identify factors that motivate customer to switch over service provider.

## **Significance and Scope of the Study**

The present study will provide the awareness about the Mobile Number Portability. Resultantly, customers can opt so many networks and can take the benefits from mobile phone service providers in terms of best services, low call rates and better connectivity. Further, the study was confined to four divisions of Haryana State by selecting one district from each division.

## **Data Collection**

Data were collected from primary as well as secondary source. The data were collected from users belonging to the different age groups. A well-structured questionnaire was used for collection of data.



**Table 1: Awareness about the procedure followed for Mobile Number Portability.**(Please tick as  $\checkmark$ )

STATEMENT	N/%	YES	NO	TOTAL
Awareness about Mobile Number Portability	N	159	241	400
	%	39.7	60.3	100

**Source:** Survey, Data processed through PASW 18.0**Table 2: Sources of awareness about Mobile Number Portability**(Rate these factors in scale of 1 to 5 on the basis of your preference i.e. 1=Very Important, 2=Important, 3=Less Important, 4=Unimportant, 5= Least Unimportant) (Please tick as  $\checkmark$ )

S.N.	Sources of Awareness		1	2	3	4	5	9	Total
i.	Newspapers	N	113	45	1	0	0	241	400
		%	28.3	11.3	0.3	0	0	60.3	100
ii.	Television/Radio	N	57	71	30	1	0	241	400
		%	14.3	17.8	7.5	0.3	0	60.3	100
iii.	Friends	N	95	32	26	6	0	241	400
		%	23.8	8.0	6.5	1.5	0	60.3	100
iv.	Relatives	N	15	60	62	22	0	241	400
		%	3.8	15.0	15.5	5.5	0	60.3	100
v.	Magazines	N	54	76	24	4	1	241	400
		%	13.5	19.0	6.0	1.0	0.3	60.3	100
vi.	Service providers' company agent	N	32	48	42	33	4	241	400
		%	8.0	12.0	10.5	8.3	1.0	60.3	100

**Source:** Survey, Data processed through PASW 18.0

### Findings

Table 1 depicts that 241 (60.3 per cent) respondents are not aware about the procedure followed for MNP whereas 159 (39.7 per cent) respondents are aware about the procedure followed for MNP.

Table 2 depicts that **newspapers** are 'very important' sources of awareness about mobile number portability for 113 (28.3 per cent) respondents whereas the **newspapers** are 'important' sources of awareness about mobile number portability for 45 (11.3 per cent) respondents. **Television/Radio** are 'important' sources of awareness about mobile number portability for 71 (17.8 per cent) respondents whereas the **television/ radio** are 'very important' sources of awareness about mobile number portability for 57 (14.3 per cent) respondents. **Friends** are 'very important' sources of awareness about mobile number portability for 95 (23.8 per cent) respondents whereas the **friends** are 'important' sources of awareness about mobile number portability for 32 (8.0 per cent) respondents. The **relatives** are 'important' sources of awareness about mobile number portability for 60 (15.0 per cent) respondents and the **relatives**



are very 'important' sources of awareness about prepaid mobile number portability for 15 (3.8 per cent) respondent. **Magazines** are 'important' sources of awareness about mobile number portability for 76 (19.0 per cent) respondents whereas **magazines** are 'very important' sources of awareness about mobile number portability for 54 (13.5 per cent) respondents **Service provider's company agents** are 'important' sources of awareness about mobile number portability for 48 (12.0 per cent) respondents. It is observed that **Service provider's company agents** are 'very important' sources of awareness about mobile number portability for 32 (8.0 per cent) respondents.

### Suggestions

Most of respondent are not aware about Mobile Number Portability due to illiteracy so the government should take proper action to take MNP to common public by television advertisement

MNP create competition over the network provider this make advantage to public

The service providers should improve the quality of service to make the customer remain in the same network.

### Conclusion

The MNP is a very good system is introduced by the TRAI. It provides facility to new comers according to their need. This system helps the customer to switch over to another if they are not satisfied with the current network provider's service or other factors. But most of respondent are not aware about Mobile Number Portability due to illiteracy so the government should take proper action to take MNP to common public by television advertisement From this study we came to know that most of the people are dissatisfied with poor connectivity and network problem. Even though the subscribers are facing these kinds of problems frequently with the current service provider, they remain in the same network this is because most of the service providers are providing the service alike. Hence, the subscribers are fed up with all the service providers and they remains in the same network. To avoid these kinds of problems the service providers has to provide quality service to their subscribers. And also the TRAI has to insist the service providers to offer a quality service to the subscribers. TRAI has to do is to create an awareness among the people about MNP, for that TRAI has to conduct various advertisement campaigns to make people aware about the system fully.

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