

Role of Civic Education in Promoting Social Justice and Equity: Teachers' and Learners' Perspectives in Secondary Schools in Lusaka

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Abstract

This study explores the role of civic education in promoting social justice and equity from the perspectives of teachers and learners in secondary schools in Lusaka, Zambia. Employing a mixed-methods approach, data were collected through questionnaires, interviews, and focus group discussions involving educators and students. Findings indicate that civic education contributes significantly to raising awareness of rights, responsibilities, and social inequalities among learners. However, challenges such as limited resources, curriculum gaps, and varying teaching methodologies affect its effectiveness. The study recommends enhancing teacher training, integrating practical civic engagement activities, and promoting inclusive curricula to strengthen civic education's impact on social justice and equity. These insights provide valuable guidance for policymakers and educators seeking to empower youth as active, equitable citizens.

Keywords: *Civic Education, Social Justice, Equity, Secondary Education, Teacher Perspectives, Learner Perspectives, Lusaka, Zambia*

1. Introduction

Civic education plays a pivotal role in shaping responsible and informed citizens capable of contributing to the development of just and equitable societies. It encompasses the teaching of rights, responsibilities, democratic principles, and social justice, empowering learners to engage meaningfully with civic life. In Zambia, the promotion of social justice and equity is essential to address historical inequalities and foster inclusive national development. Secondary schools serve as critical platforms for delivering civic education, where adolescents develop their understanding of societal issues and their roles as citizens. However, the effectiveness of civic education in promoting social justice and equity depends

largely on how it is taught and perceived by both teachers and learners. In Lusaka, Zambia's capital, secondary schools reflect diverse social realities, presenting unique opportunities and challenges for civic education. Despite curriculum provisions, gaps remain in the practical implementation of civic education, influenced by factors such as resource availability, teacher preparedness, and learner engagement. This study examines the perspectives of teachers and learners on the role of civic education in advancing social justice and equity within Lusaka's secondary schools. By exploring these viewpoints, the research seeks to identify strengths and weaknesses in current practices and provide recommendations for enhancing the relevance and impact of civic education in nurturing socially conscious citizens. The findings aim to contribute to broader educational policy discussions, aligning with Zambia's commitment to the Sustainable Development Goals, particularly those focusing on quality education, reduced inequalities, and peaceful, inclusive societies.

2. Research Objectives and Questions

The study aims to investigate the role of civic education in promoting social justice and equity in secondary schools in Lusaka by examining the perspectives of teachers and learners.

2.1 Research Objectives

1. To explore teachers' perspectives on how civic education addresses social justice and equity issues in secondary schools.
2. To assess learners' understanding and perceptions of civic education's role in fostering social justice and equity.
3. To identify challenges and gaps in the teaching and learning of civic education related to social justice and equity.
4. To recommend strategies to enhance the effectiveness of civic education in promoting social justice and equity in secondary schools.

2.2 Research Questions

1. How do teachers perceive the role of civic education in promoting social justice and equity among learners?



2. What are learners' views on the impact of civic education in understanding social justice and equity issues?
3. What challenges hinder the effective teaching and learning of civic education in this context?
4. What measures can be taken to improve the role of civic education in advancing social justice and equity?

3. Methodology

This study employed a **mixed-methods research design** to gain a comprehensive understanding of the role of civic education in promoting social justice and equity from the perspectives of teachers and learners in secondary schools in Lusaka.

3.1 Participants and Sampling

The research involved **50 teachers** and **150 learners** selected from five secondary schools across Lusaka using stratified random sampling to ensure representation of various school types and demographics. Teachers included those directly involved in teaching civic education, while learners were from grades offering civic education in the curriculum.

3.2 Data Collection Methods

- **Questionnaires:** Structured questionnaires were administered to both teachers and learners to gather quantitative data on their perceptions and experiences related to civic education and its impact on social justice and equity.
- **Interviews:** Semi-structured interviews with a subset of 10 teachers provided deeper qualitative insights into pedagogical approaches, challenges, and successes in teaching civic education.
- **Focus Group Discussions (FGDs):** FGDs with learner groups explored attitudes toward civic education content, relevance, and perceived outcomes in fostering social justice and equity.

3.3 Data Analysis

Quantitative data from questionnaires were analyzed using descriptive statistics to identify trends and levels of awareness. Qualitative data from interviews and FGDs were transcribed and analyzed thematically to uncover key themes and nuanced understandings.

3.4 Ethical Considerations

Ethical approval was obtained from the relevant educational authorities. Informed consent was secured from all participants, with additional parental consent for learners. Confidentiality and anonymity were maintained throughout the study, and participation was voluntary.

4. Findings and Discussion

The study revealed several key insights into the role of civic education in promoting social justice and equity in Lusaka's secondary schools, highlighting both strengths and challenges from the perspectives of teachers and learners.

4.1 Teachers' Perspectives on Civic Education

Most teachers acknowledged civic education as a vital tool for raising awareness about social justice, human rights, and equity issues. They emphasized its role in fostering critical thinking, ethical reasoning, and active citizenship among learners. Many teachers reported integrating local and national examples of social inequalities and justice-related topics into lessons to make content relatable and engaging. However, teachers also identified several challenges. Limited resources such as textbooks and teaching aids hindered effective delivery. Some expressed difficulties in addressing sensitive social topics due to cultural taboos or fear of backlash. Additionally, large class sizes and curriculum overload restricted time available for in-depth discussions on social justice themes.

4.2 Learners' Understanding and Perceptions

Learners demonstrated a reasonable understanding of key concepts related to social justice and equity, particularly human rights and responsibilities. Focus group discussions revealed that learners valued civic education as a platform to learn about societal issues and felt more

empowered to participate in community initiatives. Despite this, some learners perceived the subject as theoretical and disconnected from their lived experiences. There was a call for more practical activities, such as community service and debates, to enhance engagement and real-world application.

4.3 Challenges in Teaching and Learning Civic Education

Both teachers and learners pointed to challenges impacting the effectiveness of civic education. These included inadequate teacher training specific to social justice pedagogy, lack of interactive learning materials, and insufficient support from school management. Moreover, societal attitudes sometimes discouraged open dialogue about equity and justice, limiting classroom discussions.

4.4 Recommendations from Participants

Participants suggested incorporating more participatory and experiential learning methods to make civic education more impactful. They advocated for continuous professional development for teachers to equip them with skills to handle sensitive issues confidently. Enhanced collaboration with community organizations was also seen as a way to bring practical perspectives into the classroom.

5. Recommendations

Based on the findings, the following recommendations are proposed to enhance the role of civic education in promoting social justice and equity in Lusaka's secondary schools:

5.1 Enhance Teacher Training and Professional Development

Regular and targeted professional development programs should be implemented to equip teachers with the necessary knowledge and pedagogical skills for teaching social justice and equity effectively. Training should focus on interactive teaching methods, handling sensitive topics, and integrating local context into lessons.

5.2 Develop and Provide Adequate Teaching Resources

Schools and educational authorities should ensure the availability of relevant textbooks, multimedia tools, and teaching aids that facilitate active learning. Resources should include case studies, real-life examples, and participatory materials to make concepts relatable and engaging.

5.3 Integrate Experiential Learning Opportunities

Civic education curricula should incorporate community engagement activities such as service learning, debates, and simulations. These hands-on experiences will enable learners to apply theoretical knowledge, develop critical thinking, and foster a deeper understanding of social justice issues.

5.4 Promote Inclusive and Safe Classroom Environments

Schools should foster open and inclusive environments where learners feel safe to express opinions and discuss social justice topics without fear of judgment or discrimination. Encouraging respect for diverse perspectives enhances empathy and equity awareness.

5.5 Strengthen Collaboration with Community Stakeholders

Partnerships between schools, local NGOs, and community leaders can enrich civic education by bringing practical insights and opportunities for learner involvement in social justice initiatives. Such collaborations also help bridge the gap between classroom learning and community realities.

5.6 Review and Update Civic Education Curriculum

Curriculum developers should regularly review civic education content to ensure relevance to contemporary social issues, including equity challenges specific to Zambia. Incorporating emerging topics and aligning with national development goals will increase the subject's impact.

6. Conclusion

This study underscores the critical role civic education plays in promoting social justice and equity among secondary school learners in Lusaka. Both teachers and learners recognize its potential to cultivate awareness of rights and responsibilities, develop critical thinking, and foster active citizenship. However, challenges such as limited resources, insufficient teacher training, and sociocultural barriers hinder its full effectiveness. To maximize the transformative potential of civic education, there is a need for enhanced teacher capacity, provision of relevant and engaging learning materials, and incorporation of experiential learning that connects theory with practice. Creating inclusive classroom environments and fostering collaboration between schools and community stakeholders are also vital to nurturing socially conscious and equitable future citizens. By addressing these factors, educators and policymakers can strengthen civic education's contribution to Zambia's broader goals of social justice, equity, and sustainable development. Ultimately, empowering young people through quality civic education is essential to building inclusive societies where all individuals can participate fully and fairly.

7. Reference

1. Akila, V., M., R. E., Prabhu, G., Akila, R., & Swadhi, R. (2025). Performance Metrics in Blockchain-Enabled AIML for Cognitive IoT in Large-Scale Networks: Optimizing Data Analytics for Enhanced Network Performance. In R. Kanthavel & R. Dhaya (Eds.), *AI for Large Scale Communication Networks* (pp. 265-288). IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3693-6552-6.ch012>
2. Arockia Venice, J., Arivazhagan, D., Suman, N., Shanthi, H. J., & Swadhi, R. (2025). Recommendation Systems and Content Personalization: Algorithms, Applications, and Adaptive Learning. In R. Kanthavel & R. Dhaya (Eds.), *AI for Large Scale Communication Networks* (pp. 323-348). IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3693-6552-6.ch015>
3. Arockia Venice, J., Vettriselvan, R., Rajesh, D., Xavier, P., & Shanthi, H. J. (2025). Optimizing Performance Metrics in Blockchain-Enabled AI/ML Data Analytics: Assessing Cognitive IoT. In S. Hai-Jew (Ed.), *Enhancing Automated Decision-*



- Making Through AI (pp. 97-122). IGI Global Scientific Publishing.
<https://doi.org/10.4018/979-8-3693-6230-3.ch004>
4. Arockia, V. J., Vettriselvan, R., Rajesh, D., Velmurugan, P. R., & Cheelo, C. (2025). Leveraging AI and Learning Analytics for Enhanced Distance Learning: Transformation in Education. In H. Mamede & A. Santos (Eds.), *AI and Learning Analytics in Distance Learning* (pp. 179-206). IGI Global Scientific Publishing.
<https://doi.org/10.4018/979-8-3693-7195-4.ch008>
 5. Bansod, A., & Venice, A. (2023). Importance of Cybersecurity and RegTech in FinTech. *Telecom Business Review*, 16(1).
 6. Basha, R., Pathak, P., Sudha, M., Soumya, K. V., & Arockia Venice, J. (2025). Optimization of Quantum Dilated Convolutional Neural Networks: Image Recognition With Quantum Computing. *Internet Technology Letters*, 8(3), e70027.
 7. Catherin, T. C., Vettriselvan, R., Mathur, S., Regins, J. C., & Velmurugan, P. R. (2025). Integrating AI and Learning Analytics in Distance Learning: Strategies for Educators and Institutions. In H. Mamede & A. Santos (Eds.), *AI and Learning Analytics in Distance Learning* (pp. 207-228). IGI Global Scientific Publishing.
<https://doi.org/10.4018/979-8-3693-7195-4.ch009>
 8. Catherine, S., Kiruthiga, V., & Gabriel, R. (2024). Effective Brand Building in Metaverse Platform: Consumer-Based Brand Equity in a Virtual World (CBBE). In *Omnichannel Approach to Co-Creating Customer Experiences Through Metaverse Platforms* (pp. 39-48). IGI Global Scientific Publishing.
 9. Catherine, S., Ramasundaram, G., Nimmagadda, M. R., & Suresh, N. V. (2025). Roots, Routes, and Identity: How Culture Shapes Heritage Travel. In *Multiple-Criteria Decision-Making (MCDM) Techniques and Statistics in Marketing* (pp. 343-352). IGI Global Scientific Publishing.
 10. Catherine, S., Suresh, N. V., Mangaiyarkarasi, T., & Jenefa, L. (2025). Unveiling the Enigma of Shadow: Ethical Difficulties in the Field of AI. In *Navigating Data Science: Unleashing the Creative Potential of Artificial Intelligence* (pp. 57-67). Emerald Publishing Limited.



11. Delecta Jenifer, R., Vettriselvan, R., Saxena, D., Velmurugan, P. R., & Balakrishnan, A. (2025). Green Marketing in Healthcare Advertising: A Global Perspective. In B. Miguélez-Juan & S. Rebollo-Bueno (Eds.), *AI Impacts on Branded Entertainment and Advertising* (pp. 303-326). IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3693-3799-8.ch015>
12. Devi, M., Manokaran, D., Sehgal, R. K., Shariff, S. A., & Vettriselvan, R. (2025). Precision Medicine, Personalized Treatment, and Network-Driven Innovations: Transforming Healthcare With AI. In R. Kanthavel & R. Dhaya (Eds.), *AI for Large Scale Communication Networks* (pp. 303-322). IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3693-6552-6.ch014>
13. Duraimutharasan, N., Deepan, A., Swadhi, R., Velmurugan, P. R., & Varshney, K. R. (2025). Enhancing Control Engineering Through Human-Machine Collaboration: AI for Improved Efficiency and Decision-Making. In M. Mellal (Ed.), *Harnessing AI for Control Engineering* (pp. 155-176). IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3693-7812-0.ch008>
14. Gayathri, K., Krishnan, P., Rajesh, K., Anandan, K., & Swadhi, R. (2019). Synthesis, growth, structural, optical, thermal, dielectric and laser damage threshold studies of new semi organic NLO crystal: Tetra aqua bis (hydrogen maleato) cobalt(II). *AIP Conference Proceedings*, 2115, 030412. <https://doi.org/10.1063/1.5113251>.
15. Gayathri, K., Rajesh, K., Krishnan, P., Anandan, K., Swadhi, R., Devaraj, A. R., & Anbalagan, G. (2020). Structural and optical properties of SnO₂ thin films deposited by spray pyrolysis technique. *AIP Conference Proceedings*, 2265, 030425. <https://doi.org/10.1063/5.0017481>
16. Geethapriya, J. & Devaraj, Anitha & Krishnan, Gayathri & Swadhi, R. & Elangovan, N & S.Manivel, & Subbaiah, Sowrirajan & Thomas, Renjith. (2023). Solid state synthesis of a fluorescent Schiff base (E)-1-(perfluorophenyl)-N-(o-tolyl)methanimine followed by computational, quantum mechanical and molecular docking studies. *Results in Chemistry*. 5. 100819. [10.1016/j.rechem.2023.100819](https://doi.org/10.1016/j.rechem.2023.100819).
17. Gokila, S., Helen, D., Alemu, A. M., & Suresh, N. V. (2024, November). Scaling Approach Over Learning Layer of Deep Learning Model to Reduce the FALSE Error



- in Binary Classification. In 2024 8th International Conference on Electronics, Communication and Aerospace Technology (ICECA) (pp. 1294-1300). IEEE.
18. Helen, D., & Suresh, N. V. (2024). Generative AI in Healthcare: Opportunities, Challenges, and Future Perspectives. *Revolutionizing the Healthcare Sector with AI*, 79-90.
19. J. Jayaganesh, K. Suresh Kumar, Konda Hari Krishna, Mohit Tiwari, R. Vettriselvan, Chetan Shelke, (2026) Different Requirements in Quality of Service Using an Adaptive Network Algorithm, *Advances in AI for Cloud, Edge, and Mobile Computing Applications*, Apple Academic Press, Taylor & Francis Group.
20. Kalaivani, M., Suganya, V., Suresh, N. V., & Catherine, S. (2025). The Next Wave in Marketing: Data Science in the Age of Generative AI. In *Navigating Data Science* (pp. 13-26). Emerald Publishing Limited.
21. Manoharan, C., Poongavanam, S., Arivazhagan, D., Divyaranjani, R., & Vettriselvan, R. (2020). Cognition and emotions during teaching-learning process. *International Journal of Scientific and Technology Research*, 9(2), 267-269.
22. Natraj, N. A., Abirami, T., Ananthi, K., Venice, J. A., Chandru, R., & Rathish, C. R. (2024). The Impact of 5G Technology on the Digital Supply Chain and Operations Management Landscape. In *Applications of New Technology in Operations and Supply Chain Management* (pp. 289-311). IGI Global.
23. Natraj, N. A., Abirami, T., Ananthi, K., Venice, J. A., Chandru, R., & Rathish, C. R. (2024). The Impact of 5G Technology on the Digital Supply Chain and Operations Management Landscape. In *Applications of New Technology in Operations and Supply Chain Management* (pp. 289-311). IGI Global.
24. Poongavanam, S., Srinivasan, R., Arivazhagan, D., & Suresh, N. V. (2023). Medical Inflation-Issues and Impact. *Chettinad Health City Medical Journal* (E-2278-2044 & P-2277-8845), 12(2), 122-124.
25. R. Vettriselvan, C. Vijai, J. D. Patel, S. Kumar, R. P. Sharma and N. Kumar, "Blockchain Embraces Supply Chain Optimization by Enhancing Transparency and Traceability from Production to Delivery," 2024 International Conference on Trends in Quantum Computing and Emerging Business T



26. Ramya, R., Kiruthiga, V., Vettriselvan, R., Gayathri, V., & Velmurugan, P. R. (2025). Hybrid Entrepreneurship Navigating Career Transitions: Career Shifts and Their Impact on Economic Growth. In M. Tunio (Ed.), *Applications of Career Transitions and Entrepreneurship* (pp. 241-268). IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3693-4163-6.ch010>
27. Shanthi, H. J., Gokulakrishnan, A., Sharma, S., Deepika, R., & Swadhi, R. (2025). Leveraging Artificial Intelligence for Enhancing Urban Health: Applications, Challenges, and Innovations. In F. Özsungur (Ed.), *Nexus of AI, Climatology, and Urbanism for Smart Cities* (pp. 275-306). IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3693-5918-1.ch010>
28. Suganya, V., & Suresh, N. V. (2024). Potential Mental and Physical Health Impacts of Spending Extended Periods in the Metaverse: An Analysis. In *Creator's Economy in Metaverse Platforms: Empowering Stakeholders Through Omnichannel Approach* (pp. 225-232). IGI Global.
29. Sujatha, R., Aarthy, S. L., & Vettriselvan, R. (Eds.). (2021). *Integrating Deep Learning Algorithms to Overcome Challenges in Big Data Analytics*. CRC Press.
30. Suresh, N. V., & Remy, V. A. M. (2024, February). An Empirical Study on Empowering Women through Self Help Groups. In *3rd International Conference on Reinventing Business Practices, Start-ups and Sustainability (ICRBSS 2023)* (pp. 957-964). Atlantis Press.
31. Suresh, N. V., Ananth Selvakumar, Gajalakshmi Sridhar, and S. Catherine. "Ethical Considerations in AI Implementation for Patient Data Security and Privacy." In *AI Healthcare Applications and Security, Ethical, and Legal Considerations*, pp. 139-147. IGI Global, 2024.
32. Suresh, N. V., Catherine, S., Selvakumar, A., & Sridhar, G. Transparency and accountability in big data analytics: Addressing ethical challenges in decision-making processes. In *Digital Transformation and Sustainability of Business* (pp. 742-745). CRC Press.



33. Suresh, N. V., Karthikeyan, M., Sridhar, G., & Selvakumar, A. (2025). Sustainable urban planning through AI-driven smart infrastructure: A comprehensive review. *Digital Transformation and Sustainability of Business*, 178-180.
34. Suresh, N. V., Manoj, G., Rajkumar, M. D., & Kanagasabai, B. (2024). Fundamental anomalies as a mediator in the relationship between heuristics and investment decisions. *International Journal of Applied Management Science*, 16(4), 383-396.
35. Suresh, N. V., Selvakumar, A., & Sridhar, G. (2024). Operational efficiency and cost reduction: the role of AI in healthcare administration. In *Revolutionizing the Healthcare Sector with AI* (pp. 262-272). IGI Global.
36. Suresh, N. V., Selvakumar, A., Sasikala, B., & Sridhar, G. (2024, June). Integrating Environmental, Social, and Governance (ESG) Factors into Social Accounting Frameworks: Implications for Sustainable Business Practices. In *International Conference on Digital Transformation in Business: Navigating the New Frontiers Beyond Boundaries (DTBNNF 2024)* (pp. 18-28). Atlantis Press.
37. Suresh, N. V., Selvakumar, A., Sridhar, G., & Jain, V. (2024). Integrating Mechatronics in Autonomous Agricultural Machinery: A Case Study. *Computational Intelligent Techniques in Mechatronics*, 491-507.
38. Suresh, N. V., Selvakumar, A., Sridhar, G., & Jain, V. (2025). Dynamic Pricing Strategies Implementing Machine Learning Algorithms in E-Commerce. In *Building Business Models with Machine Learning* (pp. 129-136). IGI Global Scientific Publishing.
39. Suresh, N. V., Selvakumar, A., Sridhar, G., & Trivedi, S. (2024). A Research Study on the Ethical Considerations in Harnessing Basic Science for Business Innovation. In *Unleashing the Power of Basic Science in Business* (pp. 55-64). IGI Global.
40. Suresh, N. V., Shanmugam, R., Selvakumar, A., & Sridhar, G. Patient-centric care optimization: Strategies for enhancing communication and efficiency in healthcare settings through cross-functional collaboration. In *Digital Transformation and Sustainability of Business* (pp. 738-741). CRC Press.
41. Suresh, N. V., Sridhar, J., Selvakumar, A., & Catherine, S. (2024). Machine Learning Applications in Healthcare: Improving Patient Outcomes, Diagnostic Accuracy, and



- Operational Efficiency. In AI Healthcare Applications and Security, Ethical, and Legal Considerations (pp. 1-9). IGI Global
42. Swadhi, R. (2025). Innovative Strategies for Widespread Adoption in a Climate-Smart Future: Scaling Up Agroforestry. In A. Atapattu (Ed.), *Agroforestry for a Climate-Smart Future* (pp. 473-496). IGI Global Scientific Publishing.
43. Swadhi, R., Gayathri, K., Anitha Rexalin, D., Rajesh, K., & Anandan, K. (2025). Development and characterization of gadolinium-doped hydroxyapatite to enhance biocompatibility in biomedical applications. *Texila International Journal of Public Health*, 13(1). <https://doi.org/10.21522/tijph.2013.13.01.art033>
44. Swadhi, R., Gayathri, K., Anitha Rexalin, D., Rajesh, K., & Anandan, K. (2025). Magnesium-doped brucinium hydroxyapatite: A versatile material for biomedical applications. *Cuestiones de Fisioterapia*, 54(4), 288–298
45. Swadhi, R., Gayathri, K., Dimri, S., Balakrishnan, A., & Jyothi, P. (2025). Role of Digital Marketing in Shaping Travel Decisions: Consumer Behavior in Tourism. In B. Sousa & V. Santos (Eds.), *Intersections of Niche Tourism and Marketing* (pp. 153-176). IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3693-8417-6.ch007><https://doi.org/10.4018/979-8-3693-8282-0.ch016>
46. Swadhi, R., Gayathri, K., Rajesh, K., Anandan, K. & Anitha Rexalin, D., (2023). Hydrothermal synthesis and characterization of brucine functionalized hydroxyapatite materials for bioimaging applications. *European Chemical Bulletin*, 12(7), 2456–2469. <https://doi.org/10.48047/ecb/2023.12.7.190>
47. Thiruvassagam, G., & Vettriselvan, R. (2021). What is after COVID-19?: Changing economies of the shipping industries and maritime education institutions. 21st Annual General Assembly, IAMU AGA 2021-Proceedings of the International Association of Maritime Universities, 96-110.
48. Velmurugan, P. R., Arunkumar, S., Vettriselvan, R., Deepan, A., & Rajesh, D. (2025). Strategic Approaches to Corporate Social Responsibility and Sustainable Development: Integrating Leadership, Marketing, and Finance. In I. Gigauri & A. Khan (Eds.), *Navigating Corporate Social Responsibility Through Leadership and*



- Sustainable Entrepreneurship (pp. 373-406). IGI Global Scientific Publishing.
<https://doi.org/10.4018/979-8-3693-6685-1.ch013>
49. Velmurugan, P. R., Catherine, S., Vettriselvan, R., E. P., J., & Rajesh, D. (2025). Innovative Intercultural Communication Training in Translator Education: Cultivating Cultural Competence. In M. Amini (Ed.), *Cutting-Edge Approaches in Translator Education and Pedagogy* (pp. 217-244). IGI Global Scientific Publishing.
<https://doi.org/10.4018/979-8-3693-6463-5.ch008>
50. Velmurugan, P. R., Swadhi, R., Varshney, K. R., Regins, J. C., & Gayathri, K. (2025). Creating Engaging and Personalized Learning Experiences in Distance Education: AI and Learning Analytics. In H. Mamede & A. Santos (Eds.), *AI and Learning Analytics in Distance Learning* (pp. 103-126). IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3693-7195-4.ch005>
51. Venice, J. A., Thoti, K. K., Henrietta, H. M., Elangovan, M., Anusha, D. J., & Zhakupova, A. (2022, September). Intelligent space robots integrated with enhanced information technology and development activities. In *2022 4th international conference on inventive research in computing applications (ICIRCA)* (pp. 241-249). IEEE.
52. Venice, J. A., Thoti, K. K., Henrietta, H. M., Elangovan, M., Anusha, D. J., & Zhakupova, A. (2022, November). Artificial Intelligence based Robotic System with Enhanced Information Technology. In *2022 Sixth International Conference on I-SMAC (IoT in Social, Mobile, Analytics and Cloud)(I-SMAC)* (pp. 705-714). IEEE.
53. Vettriselvan, R. & Ramya, R. (2025). Sustainable Curriculum Design and Development: A Comprehensive Approach. In A. Sorayyaei Azar, S. Gupta, K. Al Bataineh, N. Maurya, & P. Somani (Eds.), *Smart Education and Sustainable Learning Environments in Smart Cities* (pp. 471-486). IGI Global Scientific Publishing.
<https://doi.org/10.4018/979-8-3693-7723-9.ch027>
54. Vettriselvan, R. (2025). Commercial Applications of Aeroponics: Revolutionizing Modern Agriculture and Sustainable Food Production. In C. G. (Ed.), *Utilizing Aeroponics Techniques for Improved Farming* (pp. 249-282). IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3693-2320-5.ch010>



55. Vettriselvan, R. (2025). Empowering Digital Education: The Future of Value-Based Learning in the Digital Era. In B. Sousa & C. Veloso (Eds.), *Empowering Value Co-Creation in the Digital Era* (pp. 199-228). IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3373-1742-7.ch009>
56. Vettriselvan, R. (2025). Harnessing Innovation and Digital Marketing in the Era of Industry 5.0: Resilient Healthcare SMEs. In T. Olubiyi, S. Suppiah, & C. Chidoko (Eds.), *The Future of Small Business in Industry 5.0* (pp. 163-186). IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3693-7362-0.ch007>
57. Vettriselvan, R., & Anto, M. R. (2018). Pathetic health status and working condition of Zambian women. *Indian Journal of Public Health Research & Development*, 9(9), 259-264.
58. Vettriselvan, R., Anu, S., & Jesu Rajan, F. S. A. (2016). Problems faced by women Construction workers in Theni District. *International Journal of Management Research and Social Science*, 3(2), 58-61.
59. Vettriselvan, R., Deepa, R., Gautam, R., Suresh, N. V., & Cathrine, S. (2025). Bridging Academia and Industry Through Technology and Entrepreneurial Innovation: Enhancing Supply Chain Efficiency. In P. Mahalle (Ed.), *Bridging Academia and Industry Through Cloud Integration in Education* (pp. 145-174). IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3693-6705-6.ch006>
60. Vettriselvan, R., Deepan, A., Garg, P. K., Suresh, N. V., & Velmurugan, P. R. (2025). Advanced Text Analysis, Simplification, Classification, and Synthesis Techniques: Leveraging AI for Enhanced Medical Education. In N. Jomaa (Ed.), *Using AI Tools in Text Analysis, Simplification, Classification, and Synthesis* (pp. 37-66). IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3693-9511-0.ch002>
61. Vettriselvan, R., Deepan, A., Jaiswani, G., Balakrishnan, A., & Sakthivel, R. (2025). Health Consequences of Early Marriage: Examining Morbidity and Long-Term Wellbeing. In E. Uddin (Ed.), *Social, Political, and Health Implications of Early Marriage* (pp. 189-212). IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3693-3394-5.ch008>



62. Vettriselvan, R., Rajesh, D., Subhashini, S., Gajalakshmi, K., & Sakthivel, R. (2025). Developing and Applying PCK in Diverse Subjects: Best Practices for Mathematics, Science, Social Sciences, and Language Arts. In N. Taskin Bedizel (Ed.), *Current Trends and Best Practices of Pedagogical Content Knowledge (PCK)* (pp. 1-30). IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3693-0655-0.ch001>
63. Vettriselvan, R., Rajesh, D., Swadhi, R., Velmurugan, P. R., & Arunkumar, S. (2025). Enhancing Efficiency and Accountability: Innovative Approaches to Public Financial Management in Higher Education. In A. Enaifoghe & R. Mthethwa (Eds.), *Challenges of Public Administration Management for Higher Education* (pp. 81-112). IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3693-4346-3.ch005>
64. Vettriselvan, R., Ramya, R., Sathya, M., Swadhi, R., & Deepan, A. (2025). Service Delivery and Citizen-Centric Approaches: Innovating Public Administration Management in Higher Education. In A. Enaifoghe & R. Mthethwa (Eds.), *Challenges of Public Administration Management for Higher Education* (pp. 113-136). IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3693-4346-3.ch006>
65. Vettriselvan, R., Velmurugan, P. R., Deepan, A., Jaiswani, G., & Durgarani, M. (2025). Transforming Virtual Education: Advanced Strategies for Quality Assurance in Online and Distance Learning. In M. Kayyali (Ed.), *Navigating Quality Assurance and Accreditation in Global Higher Education* (pp. 563-580). IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3693-6915-9.ch024>
66. Vettriselvan, R., Velmurugan, P. R., Regins, J. C., Uma Maheswari, S., & Joyce, R. (2025). Best Practices, Ethical Challenges, and Regulatory Frameworks for AI Integration in Banking: Navigating the Future. In P. Chelliah, R. Venkatesh, N. Natraj, & R. Jeyaraj (Eds.), *Artificial Intelligence for Cloud-Native Software Engineering* (pp. 377-410). IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3693-9356-7.ch015>
67. Vettriselvan, R., Velmurugan, P. R., Varshney, K. R., E. P., J., & Deepika, R. (2025). Health Impacts of Smartphone and Internet Addictions Across Age Groups: Physical and Mental Health Across Generations. In M. Anshari, M. Almunawar, & P. Ordóñez



- de Pablos (Eds.), *Impacts of Digital Technologies Across Generations* (pp. 187-210). IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3693-6366-9.ch010>
68. Vettriselvan, R., Vijai, C., Patel, J. D., Sharma, P., & Kumar, N. (2024, March). Blockchain embraces supply chain optimization by enhancing transparency and traceability from production to delivery. In *2024 International Conference on Trends in Quantum Computing and Emerging Business Technologies* (pp. 1-6). IEEE.
69. Vijayalakshmi, M., A. K., S., Vettriselvan, R., Velmurugan, P. R., & Hasine, J. (2025). Strategic Collaborations in Medical Innovation and AI-Driven Globalization: Advancing Healthcare Startups. In V. Gupta & C. Gupta (Eds.), *Navigating Strategic Partnerships for Sustainable Startup Growth* (pp. 85-110). IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3693-4066-0.ch004>
70. Vijayalakshmi, M., Subramani, A. K., Vettriselvan, R., Catherin, T. C., & Deepika, R. (2025). Sustainability and Responsibility in the Digital Era: Leveraging Green Marketing in Healthcare. In H. Rahman (Ed.), *Digital Citizenship and Building a Responsible Online Presence* (pp. 285-306). IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3693-6675-2.ch011>