



E-Justice and access to justice: A critical study of Pakistan's judicial digitalization

*Atif Hussain

**Dr. Tansif Ur Rehman

***Shah Murad

The manuscript has not been previously published elsewhere and is not being considered by any other journal. The authors read and approved the final version of the respective manuscript.

*Atif Hussain, Department of Law, Dadabhoy Institute of Higher Education, Pakistan (hussainatifkalwar7@gmail.com) (+923147736311)

**Dr. Tansif Ur Rehman, Teaching Associate, Department of Sociology, University of Karachi, Pakistan; and Visiting Faculty, Department of Law, Dadabhoy Institute of Higher Education, Pakistan (tansif@live.com) (<https://orcid.org/0000-0002-5454-2150>)

***Shah Murad, Assistant Professor, Faculty of Law, Federal Urdu University of Arts, Sciences and Technology, Karachi (s.murad@fuuast.edu.pk)

Note: The authors have no conflict of interest to declare

Abstract

The digitalization of the justice system is E-Justice, which is meant to make justice faster, more transparent, and more accessible. Even in Pakistan, this is not the case. Despite such positive changes as the National Judicial Automation Unit, Web-based cause lists, and filing portals, there are still structural barriers. In Pakistan, only 45.7 % of the population has access to the internet, and only a small number of the digital literate population have access to broadband, particularly the rural areas and the low-income population. This paper is a critical evaluation of the judicial digitalization with respect to access to justice based on whether the reforms are inclusive or are propagating inequality. It grounds its argument on the new findings and comparisons of countries as to why, despite potentially being more transparent and efficient, the digital justice reforms in Pakistan are going to marginalize the underprivileged people without special consideration. In that regard, e-justice must be inclusive, i.e., rights-based, i.e., infrastructure investment, data protection, and digital literacy are to be taken into consideration.

Keywords: challenges, historical context, laws, opportunities, theoretical context

Introduction

Access to justice is one of the basic pillars of democratic governance and the rule of law, as people can seek redress and enforce their rights by fair and effective



Qualitative Research Journal for Social Studies

ISSN Online: 3006-4686, ISSN Print: 3006-4678

Volume No: 02 Issue No: 03 (2025)

means. The implementation of digital technologies in the administration of justice (Diuraev et al., 2025). The 21st century has changed the world of law-making technology, and the term e-justice has emerged (Shoukat et al., 2025). It seeks to provide faster, open, and efficient justice by innovating, like the filing of cases online, using virtual hearings, and electronic documents (Ullah & Hussain 2023).

An example is the case of Internet Courts in China, which shows that technology can be efficient and accessible in the resolution of disputes (Mangi et al., 2025). Equally, the E-Litigation Project of Singapore and the e-Courts Mission Mode Project in India have minimized the delay in the process due to integrated online solutions (Alam, 2024). Nevertheless, incompetence, inaccessibility, and backlog of the cases of over two million persist in Pakistan despite such efforts (Junaid et al., 2024). New reforms have been made in recent years, including the National Judicial Automation Unit, e-filing systems, and online cause lists, but they were unevenly applied (Khan et al., 2024).

Digital evidence and prosecution of cybercrime studies show holes in uniformity and reachability to the smaller groups (Kassar et al., 2024). Despite the penetration of the internet of 45.7 percent in 2025 and the relatively low cost of broadband being one of the cheapest in South Asia, the digital disparity still affects access (Lal et al., 2023). This paper thus critically discusses the question of whether the digital reforms in judicial administration in Pakistan improve access to justice or are employed to support the socio-economic difference (Saleem et al., 2025).

Research Justification

E-justice is a democratic requirement and not just a technical change that will be grounded on transparency, efficiency, and fair access to justice. The judicial system in Pakistan has known challenges that include persistent backlog, delays in the process of passing a case, a lack of coordination between different institutions, and dwindling confidence of the people in the judicial system. Digitization of the judicial system is therefore an important chance to reform and streamline the performance of the courts, minimize human error, and enhance the availability of judicial services to people in both urban and rural areas. Nevertheless, it is only with technological advancement that justice can be obtained.

Digitalization will not necessarily eradicate inequalities existing in society without intervening in structural stigmas like lack of internet connection, expensive digital connectivity, low digital literacy, and deep-rooted gender inequalities. High costs of broadband, as well as a deficiency in necessary digital skills, are also major challenges to inclusive and sustainable reform of justice. Therefore, the proposed research will measure the degree of judicial digitalization in Pakistan regarding its inclusivity, sustainability, and compliance with the overall principles of fairness, transparency, human rights, and social equity.



Qualitative Research Journal for Social Studies

ISSN Online: 3006-4686, ISSN Print: 3006-4678

Volume No: 02 Issue No: 03 (2025)

Research Objectives

1. To discuss the historical context of e-justice and access to justice in Pakistan.
2. To highlight the theoretical context of e-justice and access to justice in Pakistan.
3. To analyze the laws regarding e-justice and access to justice in Pakistan.
4. To identify the key challenges regarding e-justice and access to justice in Pakistan.
5. To explore the opportunities for e-justice and access to justice in Pakistan.
6. To propose effective prevention and intervention strategies.

Research Methodology

This study employed a systematic review methodology, with research objectives established accordingly. A comprehensive literature review was conducted (Komba & Lwoga, 2020). Research findings were categorized based on their content (Hiver et al., 2021; Petticrew & Roberts, 2006), and classified information was incorporated into the study by organizing it into headings (Gan et al., 2021; Pawson et al., 2005). The evaluation of classified information and titles formed the basis of the study (Page, 2021; Rahi, 2017), ensuring the integrity of the research subject and its contents (Egger et al., 2022; Victor, 2008). The criteria for selection are listed.

1. **Relevance:** Researches that directly addressed the questions posed by this study are included.
2. **Quality:** Studies that meet a certain quality threshold (e.g., methodological rigour, bias risk) are included. Most of the research is from Scopus-indexed and Clarivate Analytics journals and reputed publishers.
3. **Recency:** Consideration of the publication date to ensure that the review reflects the most current evidence. Most of the studies are from the last three years.
4. **Language:** Only studies published in English are included.
5. **Data Completeness:** Previous studies must provide sufficient data on outcomes of interest for practical synthesis; this is also ensured in this research.

This study did not use primary data from human participants; therefore, no ethics clearance letter from the ethics committee was required.

Literature Review

E-justice has gained an innovative method of judicial reform that has been undertaken globally, which incorporates technology alongside governance, transparency, and accessibility by the citizens (Mangi et al., 2025). Researchers highlight that e-filing, virtual hearings, and Abased analytics are examples of digital tools that transformed the way courts operate and the way justice is administered (Diuraev et al., 2025). In developed jurisdictions such as Estonia, Singapore, and the United Kingdom, digital change has enhanced transparency, predictability, and efficiency in the running of the courts. The X-Road platform in Estonia is a prime example of how the data exchange can make individuals have more confidence in courts and enhance the management of cases (Ullah & Hussain, 2023).



Qualitative Research Journal for Social Studies

ISSN Online: 3006-4686, ISSN Print: 3006-4678

Volume No: 02 Issue No: 03 (2025)

However, in the developing countries, there is a more complicated way towards digital judicial reform (Shoukat et al., 2025). Online dispute resolution and accessibility have been improved by the courts' Mission Mode Project in India, as well as by Brazil and Kenya reforms that have demonstrated a lack of infrastructure and human resources (Alam, 2024). These experiences indicate that the e-justice reforms largely relieve the stability of the internet access and affordable broadband, and on the institutional preparedness (Junaid et al., 2024). Weak resources, human resources, and unequal connectivity remain factors that infringe the transformational power of digital justice systems (Khan et al., 2024).

In Pakistan, e-justice projects have been steadily increasing, targeting digital cause lists, online filing, and partial online automation of upper courts (Kassar et al., 2024). However, the lower courts continue to be highly dependent on manual record keeping, and connections and training and awareness lapses continue (Lal et al., 2023). According to recent studies, transparent and inclusive e-justice design, as well as digital evidence reforms and procedural fairness, can enhance public confidence and judicial responsibility (Saleem et al., 2025).

Historical Context of E-Justice and Access to Justice in Pakistan

E-justice is based on the theories of procedural fairness, access to justice, and digital governance (Lal et al., 2023). All these frameworks include that fairness and equality lie at the core of judicial modernization (Saleem et al., 2025). Court digital transformation cannot only be efficient but should be inclusive and unbiased to all citizens (Kassar et al., 2024). It coincides with the constitutional right of equality before the law in Article 25 of Pakistan. Transparency, oversight, and technological accessibility are critical factors in the successful deployment of e-justice platforms, which facilitate justice and do not substitute it (Junaid et al., 2024).

Digital governance theory also focuses on using ICT to enhance transparency and accountability in public institutions (Khan et al., 2024). The modern management concepts of accessibility and affordability are manifested in the judiciary with automation, provision of judgments via the internet, and delivery of judgments digitally (Alam, 2024). Studies highlight the opportunity that legal technology and digital evidence systems offer to increase procedural reliability and confidence in a court among the population (Mangi et al., 2025).

Besides, the procedural justice theory emphasizes justice during law procedures and not its results (Diuraev et al., 2025). Specify that to make digital courts in Pakistan trustworthy and accessible to everyone (Ullah & Hussain, 2023). It is necessary to take care of the inclusiveness and procedural protection of the system (Shoukat et al., 2025).

Theoretical Context of E-Justice and Access to Justice in Pakistan

This paper is based on the principles of access to justice, digital governance, and procedural justice as its theoretical underpinning. The theories indicate how the use of technology may make citizens more empowered or vice versa, depending on its application in an unequal manner. Access to justice theory focuses on the fact that all



people must be given equal access to the pursuance of the law through seeking legal redress before the court of law and receiving fair treatment. This concept is relevant to the area of judicial digitalization, where technology should have the ability to improve access and not establish additional obstacles to disadvantaged groups.

Digital governance is a theory of governance that dwells on the use of information and communication technologies by governments in improving transparency, accountability, and participation of citizens. It translates into the judiciary of Pakistan, where the initiatives put up to mark e-justice must run under ethical, transparent, and inclusive digital policies so that the service delivery is just. Lastly, the procedural theory of justice emphasizes fairness in the law. It implies that transparent, consistent, and fair procedures are more likely to lead to citizens trusting and approaching judicial institutions.

Laws Regarding E-Justice and Access to Justice in Pakistan

- 1. Electronic Transactions Ordinance, 2002 (ETO):** The law permits the legal standing of electronic documents, records, and signatures, enhancing e-filing, e-contracts, and e-communication in courts and the general administration.
- 2. Prevention of Electronic Crimes Act, 2016 (PECA):** Enacts cybercrime legislation and provisions punishment against cybercrimes like hacking, identity theft, and unauthorized access to data. It gives authority to the Federal Investigation Agency (FIA) to probe online crimes.
- 3. National Information Technology Policy, 2018:** It intends to make the government and judicial system digitally empowered. It also encourages online connectivity, cloud technologies, cybersecurity, and systems of e-governance.
- 4. Right of Access to Information Law, 2017:** Holds transparency and accountability by making the records of the populace accessible online. Facilitates open data systems in the courts and other governmental departments.
- 5. Data Protection bill (Draft, 2023):** Tries to protect the privacy of information of individuals as well as judges. Critical in promoting faith and secrecy in the digital courts.
- 6. Pakistan Telecommunication (Re-organization) Act, 1996:** Manages internet infrastructures and digital access, which is the technological foundation of e-justice access.
- 7. E-Government Initiatives Framework (NITB):** It brings technology on board to digitalize offices and aims to work for the automation of courts and internet-based case management systems.

Challenges for E-Justice and Access to Justice in Pakistan

- 1. Affordability of Broadband:** The prohibitive price of broadband also poses a major hindrance to digital access. The internet costs are estimated at approximately 11 per cent of monthly Gross National Income (GNI), an incredibly high number



considering the suggested 2 per cent affordability level by the International Telecommunication Union (World Bank, 2025).

2. **Digital Divide:** Close to half of the Pakistani population does not have access to the internet (UNDP, 2024). The rural, low-income, and elderly citizens are still largely left out of digital legal services, which increases the access to justice gap.
3. **Data Threats:** Anyone integrating with judicial databases with NADRA and other government agencies has high risks of cyber-attack and data governance, revealing sensitive judicial and citizen information.
4. **Gender Inequality:** The level of adoption of mobile internet amongst women is also significantly low because there are social limitations on technology ownership and access (GSMA, 2025). It increases the digital gender gap.
5. **Infrastructure Gaps:** Several district courts do not have constant electricity, ICT appliances, and proper internet connectivity, which block easy digital operations and online case management.
6. **Training Inefficiency:** One of the greatest challenges facing judicial digitalization is that many court workers and legal experts lack digital competence. Judges, lawyers, and clerical officers do not always possess technical skills and the knowledge of AI ethics, which are critical in the safe and responsible application of e-justice tools.

Opportunities for E-Justice and Access to Justice

1. **Digital Transparency:** Online community dashboards have the potential to show backlog of cases, performance of the courts, and the timelines, so that accountability and confidence in the judiciary process can be assured by having real-time transparency with the help of the internet.
2. **International Support:** International organizations like the United Nations Development Program (UNDP) and World Bank offer financial as well as technical support to enhance judicial digitalization in Pakistan. Their interest makes certain sustainability, mobilization of resources, and application of international best practices in e-justice.
3. **Mobile-First Platforms:** The mobile penetration rate of almost 75 percent means that the e-court applications can be simplified and made mobile-friendly to boost accessibility greatly. These avenues satisfy the inclusion gaps since citizens (especially those who are rural or low-income) are able to communicate with the courts at a very inexpensive cost using smartphones.
4. **Public-Private Partnerships:** Cooperation in collaboration between the judicial system, NADRA, and other private technology companies might enhance the situation of digital infrastructure, data handling, and other authentication systems. These alliances enhance creativity, safety, and efficiency.
5. **Women's Empowerment:** Women are more likely to use digital spaces, which encourages the enrolment of women in the digital space and boosts the presence of women internet users (GSMA, 2025), to improve equitable access to e-justice. Digitally



Qualitative Research Journal for Social Studies

ISSN Online: 3006-4686, ISSN Print: 3006-4678

Volume No: 02 Issue No: 03 (2025)

targeted gender initiatives can overcome social stigma and enable women to develop litigation without fear of approaching the court.

Discussion

Even though Pakistani society has achieved a lot in terms of the digitization of its justice system, there are also gaps in inclusion that still exist and prevent fair access. Digital transformation has made things more transparent, efficient, and accessible in procedures to people with proper internet connectivity. Nevertheless, there is still a significant portion of the population that is not covered by internet coverage, has limited internet literacy, and is unaware of online legal services. The digital divide, affordability, and gender gap also limit E-justice initiatives, especially in rural and underprivileged locations. However, it has been shown recently that modernization processes are underway. The policy frameworks need to be focused on the low-bandwidth digital systems, assisted e-filing centers, multilingual user interfaces, and well-built data protection systems to make sure that inclusiveness is maintained in the long term. These would facilitate the application of technological innovations effectively to have a system of justice that is more sustainable and people-friendly in Pakistan.

Conclusion

Judicial digitalization in Pakistan has persisted with challenges without much promise of success. It has been accomplished in the form of higher affordability, better privacy protection, and long-term infrastructural investments. But e-justice should not be just efficient in technology, and it should go further in assuming a rights-based approach, which is socially and institutionally oriented. Disparities in the digital divide can be reduced by providing affordable connectivity and digital literacy to make it inclusive. E-justice can make the Pakistani judicial system transparent, efficient, and equitable when it is pushed via responsible behavior, which would be more likely to enhance the trust of people and trigger the further objective of the judicial system being accessible to everyone.

Recommendations

1. Carry out ongoing monitoring and testing of e-justice programs in terms of independent audits and stakeholder feedback to enhance accountability and system effectiveness.
2. Develop privacy and cyber protection data governance legislation.
3. Establish a National E-Justice Policy of access and rights.
4. Encourage gender neutral and mobile-first designs.
5. Ensure that there is interoperability and integration between the court management systems, law enforcement databases, and legal aid platforms to facilitate data sharing and efficiency of the process.
6. Focus on lower court digitization and implement mobile-based services.
7. Introduce judicial digital literacy training for judges and clerks.



Qualitative Research Journal for Social Studies

ISSN Online: 3006-4686, ISSN Print: 3006-4678

Volume No: 02 Issue No: 03 (2025)

8. Introduce e-filing support offices in rural and disadvantaged areas to assist those citizens who are not well-digitized to gain access to online judicial services.
9. Make sure that there is transparency in judicial performance through public dashboards.
10. Responsible use of AI under ethical oversight.

Research Limitations

The main sources of secondary data, which this study will utilize, are institutional reports, academic literature, and policy documents. Though the materials are informative about the process of judicial digitalization of Pakistan and the reform methods that are currently implemented there, they also pose a constraint on the empirical depth and the contextual specificity of the study. Lack of primary field data limits the chances of reflecting the lived experiences of the stakeholders, including litigants, lawyers, judges, and the court personnel. It is impossible to measure practices and outcomes of digital initiatives without personal interaction, as well as the user experience of receiving e-justice services.

Furthermore, the secondary data may be biased by institutions or have outdated information, which influences the thoroughness of the analysis. In order to overcome such limitations, the next study needs to incorporate a mixed-method design that can include quantitative surveys as well as qualitative interviews to obtain first-hand evidence about the digital accessibility, usability, and satisfaction.

Research Implications

The findings suggest that the idea of judicial digitalization in Pakistan must be introduced in the framework of the entire socio-legal overhaul rather than technological transformation. The issue of digital justice requires aggressive collaboration among governmental organizations, technology producers, legal experts, and civil society to preserve the reality that innovation is of the people and not of the convenience of the government. The study reveals that in as much although technological tools have improved the transparency and management of cases, the benefits are said to have been concentrated unevenly due to the incidences of institutional inertia and digital exclusion. This is why the digital reforms are to contain the inclusion design, ethical data management, and human-oriented reforms to introduce a substantial change. It is recommended that policymakers ensure that efficiency and equity, transparency, and moral responsibility are achieved by ensuring that automation does not compromise fairness and due process. Further, the e-justice process should be sustainable based on the regular review, consultation of stakeholders, and capacity development, which would enable technology to be subject to the constitutional provisions of justice, equality, and accessibility to all citizens.

Future Research Directions

The understanding and efficacy of judicial digitalization in Pakistan should be reinforced by concentrating on not a few areas in future research.



Qualitative Research Journal for Social Studies

ISSN Online: 3006-4686, ISSN Print: 3006-4678

Volume No: 02 Issue No: 03 (2025)

- 1. Assessment of AI Applications:** Future employment should evaluate the current use of artificial intelligence in the court management systems to determine its efficiency benefits and ethical features of privacy and accountability.
- 2. Compared to the Other Jurisdictions:** Comparative research on reforms in Indonesia, Turkey, Malaysia, and other countries can assist in finding what is best and what can be used to reform the justice system in Pakistan.
- 3. Empirical Research on User Experience and Accessibility Barriers:** With surveys and interviews with litigants, lawyers, and court staff, the first-hand experiences of users with various issues can be obtained to assess the barriers to accessibility and satisfaction with e-justice platforms.
- 4. Judicial Analytics Dashboard Measurement:** Judicial data dashboards should be used by researchers to assess the increase in access, transparency, and trust that is achieved due to a digital reform.

References

- Alam, M. (2024). Arbitration in Pakistan: Challenges in the digital era. *Annals of Human and Social Sciences*, 5(4), 674–680. [https://doi.org/10.35484/ahss.2024\(5-IV\)63](https://doi.org/10.35484/ahss.2024(5-IV)63)
- Djuraev, I., Baratov, A., Khujayev, S., Yakubova, I., Rakhmonova, M., Mukumov, B., & Abdurakhmanova, N. (2025). The impact of digitization on legal systems in developing countries. *Qubahan Academic Journal*, 5(1), 81–117. <https://doi.org/10.48161/qaj.v5n1a1246>.
- Egger, M., Higgins, J. P., & Smith, G. D. (Eds.). (2022). *Systematic reviews in health research: Meta-analysis in context*. John Wiley & Sons.
- Gan, J., Xie, L., Peng, G., Xie, J., Chen, Y., & Yu, Q. (2021). Systematic review on modification methods of dietary fiber. *Food Hydrocolloids*, 119, Article 106872. <https://doi.org/10.1016/j.foodhyd.2021.106872>.
- Hiver, P., Al-Hoorie, A. H., Vitta, J. P., & Wu, J. (2021). Engagement in language learning: A systematic review of 20 years of research methods and definitions. *Language Teaching Research*, 25(3), Article 13621688211001289. <https://doi.org/10.1177/13621688211001289>
- Junaid, S., Mairaj, M. I., & Aslam, S. (2024). Digital information needs and information-seeking behaviour among legal practitioners at the Lahore High Court, Punjab, Pakistan. *Digital Library Perspectives*, 40(4), 571-591. <https://doi.org/10.1108/DLP-12-2023-0103>
- Kassar, G. R., Kausar, S., & Laghari, A. R. (2024). Evolving case management systems: Technological and administrative reforms to address judicial delays in Pakistan. *Annals of Human and Social Sciences*, 5(3), 763-778. [https://doi.org/10.35484/ahss.2024\(5-III\)69](https://doi.org/10.35484/ahss.2024(5-III)69)
- Khan, R. U. A., Sharif, H. S., & Shahid, A. (2024). Bridging the gap: The transformative role of technology in enhancing access to justice in Pakistan. *Qlantic Journal of Social Sciences*, 5(1), 259-267. <https://doi.org/10.55737/qjss.501649280>



Qualitative Research Journal for Social Studies

ISSN Online: 3006-4686, ISSN Print: 3006-4678

Volume No: 02 Issue No: 03 (2025)

- Komba, M. M. & Lwoga, E. T. (2020). Systematic review as a research method in library and information science. In P. Ngulube (Ed.), *Handbook of research on connecting research methods for information science research* (pp. 80-94). IGI Global Scientific Publishing. <https://doi.org/10.4018/978-1-7998-1471-9.ch005>
- Lal, S., Rizvi, S. I., & Dastagir, G. (2023). Application of artificial intelligence in improving judicial case flow management system in Pakistan: A qualitative study. *Pakistan Journal of International Affairs*, 6(3), 73-88. <https://doi.org/10.52337/pjia.v6i3.878>.
- Mangi, D. B., Magsi, L. A., & Ali, U. (2025). Need of judicial reforms in Pakistan: Ensuring accountability and transparency in courts. *Pakistan Social Sciences Review*, 9(1), 182–194. [https://doi.org/10.35484/pssr.2025\(9-I\)15](https://doi.org/10.35484/pssr.2025(9-I)15)
- Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., & Moher, D. (2021). Updating guidance for reporting systematic reviews: Development of the PRISMA 2020 statement. *Journal of Clinical Epidemiology*, 134, 103-112. <https://doi.org/10.1016/j.jclinepi.2021.02.003>
- Pawson, R., Greenhalgh, T., Harvey, G., & Walshe, K. (2005). Realist review - A new method of systematic review designed for complex policy interventions. *Journal of Health Services Research & Policy*, 10(1), 21-34. <https://doi.org/10.1258/1355819054308530>
- Petticrew, M., & Roberts, H. (2006). *Systematic reviews in the social sciences: A practical guide*. Blackwell Publishing. <https://doi.org/10.1002/9780470754887>
- Rahi, S. (2017). Research design and methods: A systematic review of research, sampling issues, and instruments development. *International Journal of Economics Management Sciences*, 6(2), 403. <https://doi.org/10.4172/2162-6359.1000403>
- Saleem, H. A. R., Bukhtiar, A., Zaheer, B., & Farooq, M. A. U. (2025). Challenges faced by the judiciary in implementing cybersecurity laws in Pakistan. *The Critical Review of Social Sciences Studies*, 3(1), 1052-1066. <https://doi.org/10.59075/1wyx0v30>
- Shoukat, D., Abuzar, M. U., & Shah, Q. Z. U. (2025). AI-Enhanced online dispute resolution for family disputes: Examining global trends, models, mechanisms, and ethical challenges in Pakistan. *The Critical Review of Social Sciences Studies*, 3(2), 1766-1786. <https://doi.org/10.59075/chm5qd21>.
- Ullah, I., & Hussain, S. (2023). Impact of early access to land record information through digitization: Evidence from alternate dispute resolution data in Punjab, Pakistan. *Land Use Policy*, 134, Article 106917. <https://doi.org/10.1016/j.landusepol.2023.106917>.
- Victor, L. (2008). Systematic reviewing in the social sciences: Outcomes and explanation. *Enquire*, 1(1), 32-46. <https://www.nottingham.ac.uk/sociology/documents/enquire/volume-1-issue-1-victor.pdf>