AI-driven intelligent document processing in government and public administration

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Abstract

Government agencies handle daily paperwork, from tax filings and social security claims to legal documentation and public records. Traditional document processing is slow, labor-intensive, and prone to errors, leading to inefficiencies and delays in public service delivery. AI-driven Intelligent Document Processing (IDP) is revolutionizing public administration by automating document classification, extraction, and validation. By leveraging machine learning (ML), natural language processing (NLP), and robotic process automation (RPA), government institutions can reduce the processing time by over 70% while ensuring compliance with regulatory frameworks. This paper explores key applications of IDP in taxation, legal compliance, public benefits distribution, and law enforcement, highlighting real-world case studies and the future of AI in public administration.

Keywords: Intelligent Document Processing (IDP); AI In Public Administration; Automated Government Documentation; Machine Learning in Governance; Regulatory Compliance Automation; AI-Powered Public Sector Efficiency

1. Introduction

Government agencies manage daily paperwork, from tax filings and legal documents to social security claims and public records [1]. Every policy, benefit, and compliance check relies on structured documentation. Efficient document processing isn't just about paperwork; it directly impacts governance, service delivery, and public trust. Yet, traditional methods have long been a bottleneck, slowing operations, increasing costs, and frustrating administrators and citizens.

1.1. The Role of Documentation in Government Operations

Documents are the foundation of governance. From birth certificates and land records to court filings and tax assessments, every government function depends on well-organized, accessible, and verifiable information. Proper documentation ensures regulatory compliance, enables transparency, and safeguards citizen rights. However, manual document handling is no longer sustainable with growing populations and increasingly complex policies. Delays in approvals, misplaced files, and clerical errors have significant consequences, whether they delay a citizen's access to benefits or slow down critical legal proceedings.

1.2. Challenges in Traditional Document Processing

For decades, the public sector has relied on paper-heavy workflows and fragmented digital systems. Many agencies still use outdated legacy software, requiring employees to manually enter, verify, and retrieve information across multiple systems. This inefficiency leads to:

- **Processing Delays:** Manual validation and approvals slow decision-making, affecting services such as tax refunds, permits, and social security benefits.

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- **High Error Rates:** Data entry mistakes, missing documents, and misfiled records contribute to compliance failures and administrative headaches [2].
- **Fraud and Security Risks:** Paper-based processes and disconnected databases make it easier for fraudulent claims to slip through unnoticed.
- **Regulatory Compliance Issues:** Governments are bound by strict policies and legal frameworks, but outdated document management systems make it challenging to meet evolving compliance standards.

1.3. The Need for AI-Driven Intelligent Document Processing (IDP

AI-driven Intelligent Document Processing (IDP) is not just an upgrade—it's a transformation. By integrating machine learning (ML), natural language processing (NLP), and robotic process automation (RPA), IDP enables governments to handle vast amounts of documentation with speed and accuracy. AI can extract key data, validate information, classify records, and flag anomalies in real time, drastically reducing processing times by over 70% and cutting human error rates.

Governments worldwide are beginning to realize the power of AI-driven document automation (IDP). Whether streamlining tax audits, accelerating benefit approvals, or ensuring regulatory compliance, IDP makes governance smarter, faster, and more secure [3]. This paper explores how AI-driven IDP reshapes public administration, the key technologies driving this shift, and the real-world impact of automation in government workflows.

Table 1 Impact of Manual vs. AI-Driven Document Processing in Government

Metric	Manual Processing	AI-Driven IDP Processing	Efficiency Improvement (%)
Document Processing Time (Days)	30-90	1-3	95% Faster
Human Error Rate (%)	15-25	<2	90% Reduction
Fraud Detection Rate (%)	50-60	95	58% Increase
Compliance Accuracy (%)	75	99.5	33% Improvement

2. Understanding AI-Driven IDP in Public Administration

2.1. What is Intelligent Document Processing (IDP)?

Government agencies deal with overwhelming paperwork, including applications, legal records, compliance forms, tax filings, etc [4]. Traditionally, these processes require human intervention at multiple stages, leading to bottlenecks, delays, and inevitable errors. Intelligent Document Processing (IDP) changes the game by automating how documents are received, categorized, extracted, verified, and stored.

IDP isn't just about scanning paper and converting it to digital files. It reads, understands, and processes documents with human-like intelligence using a combination of machine learning, natural language processing (NLP), and robotic process automation (RPA). Instead of relying on structured templates, IDP can handle unstructured and semi-structured documents, like handwritten forms, legal contracts [5], and policy records, by recognizing patterns, extracting relevant information, and integrating seamlessly with government databases.

With IDP, governments digitize records and make them actionable [6]. Without human involvement, the system can flag inconsistencies, validate compliance, and even route approvals. This isn't basic automation—it is a complete reimagining of the processing of government documents.

2.2. Key Technologies: AI, NLP, and RPA in Government Workflows

Artificial Intelligence (AI) is the core of IDP. It enables systems to learn from past data, recognize document types, detect fraud, and suggest actions. AI ensures that every document is processed efficiently without rigid, rule-based programming.

Natural Language Processing (NLP) allows IDP to read, interpret, and extract meaning from text-based documents like legal filings, policy updates, and regulatory compliance reports. Instead of simple keyword matching, NLP understands the context, helping agencies process complex forms, court records, and multi-page government reports in seconds.

Robotic Process Automation (RPA) works as the execution engine, performing repetitive tasks such as data entry, validation, and routing approvals without human intervention. It ensures that information extracted by AI and NLP is correctly entered into government systems, reducing errors and eliminating manual workloads.

Together, these technologies create an ecosystem where documents move through government systems without unnecessary delays—from application processing to compliance verification, from taxation to social security claims.

2.3. How IDP Enhances Document Management in the Public Sector

For government agencies, document processing is more than just filing paperwork—it's about delivering critical services efficiently and accurately. With IDP, agencies can:

- Accelerate Processing Times: Applications that once took weeks, such as permits, welfare claims, and tax returns, can now be processed in hours.
- Improve Accuracy & Reduce Errors: By eliminating manual data entry, IDP significantly reduces mistakes in official records, avoiding costly compliance violations.
- Enhance Security & Compliance: AI-powered validation ensures documents meet strict government regulations, preventing fraud and unauthorized access.
- Free Up Human Resources: Instead of wasting time on paperwork, government employees can focus on high-value tasks like policymaking, service delivery, and citizen engagement.

Table 2 Understanding AI-Driven IDP in Public Administration – AI Technologies Used in IDP

Technology	**Function in IDP**	**Impact on Government Processes**
Machine Learning (ML)	Learns patterns from records, detects anomalies	Improves fraud detection accuracy
Natural Language Processing (NLP)	Extracts key data from unstructured documents	Speeds up data retrieval
Robotic Process Automation (RPA)	Automates repetitive document tasks	Reduces human workload by 70%
Optical Character Recognition (OCR)	Converts paper-based documents into digital text	Enables digital transformation

3. Applications of IDP in Government Services

Governments rely on documentation for nearly every function—tax collection, legal compliance, public benefits, and law enforcement. However, traditional document processing is slow, inefficient, and prone to errors. AI-driven Intelligent Document Processing (IDP) transforms these workflows by automating data extraction, classification, validation, and compliance monitoring. This section explores how IDP is revolutionizing key areas of public administration, making government services faster, more transparent, and more efficient.

3.1. Taxation and Revenue Collection

3.1.1. Automating Tax Filings and Assessments

Tax agencies handle millions of returns, corporate filings, and compliance reports annually. Processing these manually takes months, delaying refunds and increasing backlogs. IDP automates tax filing by extracting relevant financial data, validating taxpayer information, and identifying missing documentation in real time. It ensures accurate assessments, reducing the burden on both tax authorities and taxpayers.

3.1.2. Fraud Detection and Audit Compliance

Tax fraud and misfiling cost governments billions in lost revenue [7]. Detecting fraudulent filings or hidden income manually is nearly impossible at scale. With AI-driven IDP, tax agencies can scan and cross-check financial records against historical filings and databases, flagging inconsistencies instantly. Automated audit compliance ensures all filings meet legal requirements, minimizing human oversight errors and improving tax collection efficiency.

3.2. Legal and Regulatory Compliance

3.2.1. AI in Legal Documentation and Case Management

Governments generate vast amounts of legal paperwork, including contracts, regulatory filings, policy documents, and court records. Reviewing these manually slows down decision-making and increases the risk of non-compliance. IDP enables automatic document classification, clause extraction, and case referencing, allowing legal teams to process records faster while ensuring that policies and legal frameworks are adequately upheld.

3.2.2. Enhancing Transparency and Legal Accountability

One of the biggest challenges in government legal operations is ensuring transparency in policymaking and contract management [8]. IDP automates the tracking of regulatory changes, ensuring that government agencies comply with evolving laws. AI-driven document analysis provides instant insights into contracts, reducing the risk of misinterpretation or loopholes that could lead to legal disputes. By making legal documentation more accessible and auditable, IDP strengthens accountability and builds public trust.

3.3. Public Benefits and Social Security

3.3.1. Streamlining Welfare and Pension Applications

Processing pensions, unemployment benefits applications, and public assistance involves verifying identity documents, financial statements, and medical records. Manual reviews lead to delays, errors, and backlogs. IDP accelerates processing by extracting key applicant details, cross-referencing them with government databases, and flagging incomplete or fraudulent applications [9]. This ensures that genuine applicants receive benefits faster while reducing inefficiencies.

3.3.2. Automating Eligibility Verification and Fraud Prevention

Fraudulent claims are a significant issue in public benefits programs due to manual verification limitations, duplicate verification limitations, duplicate applications, forged documents, and misrepresented applications. IDP uses AI to verify eligibility criteria, detect anomalies in applicant records, and prevent fraudulent disbursements. With automated verification, agencies can focus resources on genuine cases, improving efficiency and reducing financial losses.

3.4. Law Enforcement and Public Safety

3.4.1. AI-Driven Crime Report Processing and Case Management

Law enforcement agencies generate enormous amounts of paperwork, including incident reports, witness statements, forensic records, and legal filings [10]. Manually processing and organizing these documents leads to investigative delays and case backlogs. IDP automates report classification, extracts critical case details, and connects relevant records, helping officers and investigators retrieve information instantly. Faster documentation means quicker response times and better case resolution.

3.4.2. Digital Evidence and Legal Document Automation

As law enforcement increasingly relies on digital evidence—surveillance footage, forensic analysis, and electronic records—organizing and validating these documents becomes challenging. IDP ensures that digital evidence is automatically classified, time-stamped, and stored securely, reducing tampering risks. Automated document processing also simplifies legal paperwork for prosecutions, ensuring that filings are accurate and submitted on time.

Governments worldwide are pressured to modernize their operations, improve efficiency, and enhance transparency. AI-driven Intelligent Document Processing (IDP) is a technological upgrade necessary for future-ready governance. Agencies that adopt IDP will be able to process information faster, reduce errors, prevent fraud, and ultimately improve public service delivery in previously impossible ways.

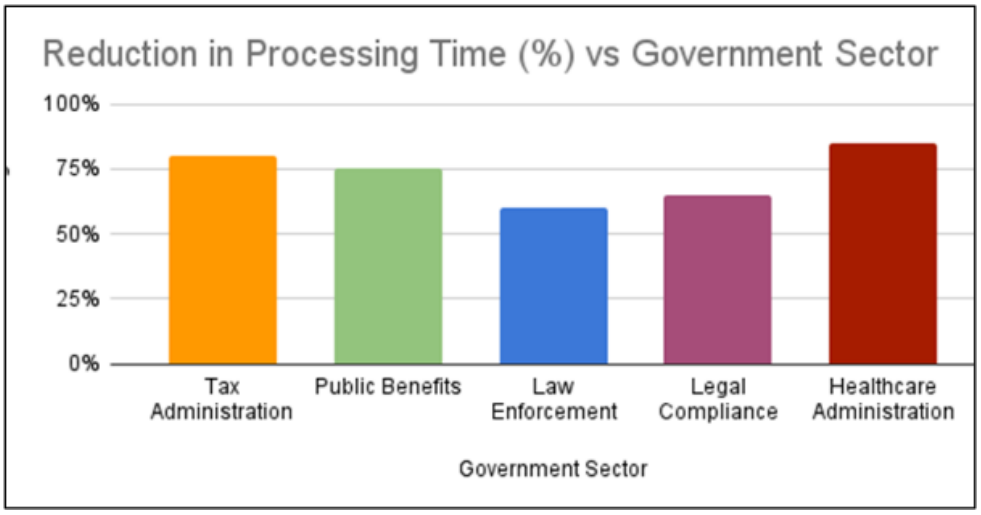

Figure 1 Applications of IDP in Government Services

4. How AI-Driven IDP Enhances Efficiency and Reduces Costs

Government agencies operate under immense pressure to process information quickly, accurately, and securely. Yet, traditional document handling is slow, labor-intensive, and prone to errors, creating bottlenecks that frustrate officials and citizens. AI-driven Intelligent Document Processing (IDP) addresses these inefficiencies by automating paperwork, eliminating redundancies, and ensuring compliance with security protocols. Governments can streamline operations, reduce costs, and improve service delivery by integrating machine learning, natural language processing, and robotic process automation.

4.1. Reducing Bureaucratic Delays with Automation

Bureaucracy is often synonymous with delays [11]. Manual document handling slows everything down, whether processing a tax refund, approving a permit, or verifying a welfare application. Forms must be sorted, reviewed, verified, and manually entered into different systems, which takes weeks, sometimes months.

With IDP, these delays shrink dramatically. AI can scan documents, extract relevant information, cross-check records, and route approvals automatically, ensuring that files don't sit idle waiting for human review. Instead of a multi-step manual workflow, government agencies can process applications in hours rather than weeks. Citizens no longer have to make endless follow-up calls; administrators can focus on decision-making rather than clerical tasks.

4.2. Minimizing Human Errors in Government Documentation

Errors in government records aren't just inconvenient—they can be catastrophic [12]. A misspelled name on an ID, a miscalculated tax assessment, or an incorrectly processed legal document can lead to disputes, legal challenges, and delays in service delivery. When humans manually handle data entry, mistakes are inevitable.

IDP eliminates this risk by using AI-driven validation checks. When a document is processed, the system verifies details against existing records, flags inconsistencies, and ensures accuracy before submission. This is particularly useful for compliance-heavy areas like tax filings, legal contracts, and financial records, where even small mistakes can have significant legal or economic consequences. Governments can avoid costly corrections, appeals, and citizen complaints with fewer errors.

4.3. Enhancing Data Security and Privacy Compliance

Government documents contain sensitive personal and financial information—social security numbers, tax filings, legal cases, and medical records. Ensuring this data remains secure while being processed manually is a constant challenge. Paper documents can be misplaced, unauthorized employees can access confidential files, and data breaches in outdated government systems are a growing concern.

AI-driven IDP addresses these vulnerabilities by automating security protocols and enforcing strict access controls [13]. Documents are encrypted, access is restricted based on authorization levels, and AI monitors for any unusual activity

that could indicate fraud or a breach. Additionally, compliance with regulations such as GDPR, HIPAA, and other data protection laws is automatically enforced, reducing legal risks and strengthening public trust.

Governments must balance efficiency with responsibility—handling information quickly while ensuring accuracy, security, and compliance. AI-driven IDP provides that balance. Eliminating delays, reducing errors, and securing sensitive data allows agencies to operate smarter, faster, and more accountable, setting a new standard for digital governance.

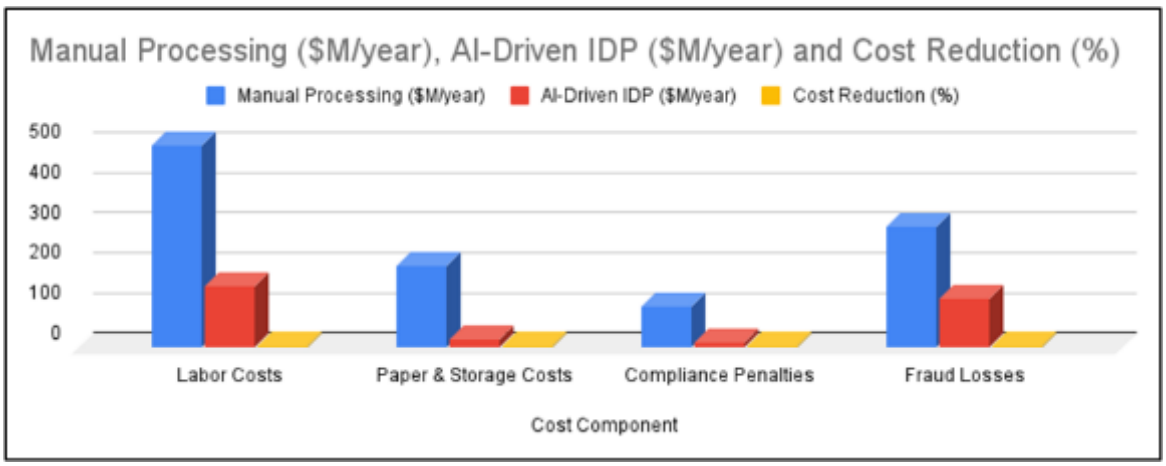

Figure 2 Cost Savings with AI-Based Document Processing

5. Challenges in Implementing IDP in Government Operations

AI-driven Intelligent Document Processing (IDP) has the potential to transform government operations, making services faster, more efficient, and more secure. However, like any major technological shift, its implementation comes with challenges. Governments handle sensitive data, operate on legacy IT infrastructure, and adhere to strict regulatory frameworks, creating obstacles when adopting AI-driven automation. Understanding these challenges ensures a smooth and responsible transition to AI-powered governance.

5.1. Data Privacy and Cybersecurity Risks Government agencies process highly sensitive information, including citizen identities, tax records, social security details, legal documents, and classified reports. Any security lapse or data breach can have severe consequences, from identity theft to financial fraud [14]. Traditional document handling comes with risks, but AI-driven systems introduce new concerns, such as unauthorized access, algorithmic biases in verification, and the potential for AI-generated errors in sensitive records.

Data privacy means strict encryption, multi-layered access controls, and real-time AI-driven fraud detection. Governments must also comply with regulations like GDPR, HIPAA, and national cybersecurity policies. The challenge isn't just about implementing IDP—it's about ensuring AI-driven automation enhances security rather than creating new vulnerabilities. IDP adoption could expose agencies to legal risks and public distrust without robust cybersecurity measures.

5.2. Integration with Legacy Government IT Systems

Many government agencies still rely on decades-old IT infrastructure designed for paper-based workflows or outdated digital formats [15]. Integrating AI-powered IDP with legacy systems is one of the biggest roadblocks. Older databases may not support real-time automation, and many government platforms lack the flexibility to process unstructured or dynamic data that AI can handle.

Replacing these legacy systems is expensive, time-consuming, and often politically challenging. Governments can't afford downtime and cannot scrap entire systems overnight. The solution? A gradual, phased integration approach, where IDP works alongside existing infrastructure before complete migration. Agencies must invest in API-based connectivity, hybrid cloud solutions, and AI models that can adapt to structured and unstructured data formats. Even the most advanced AI tools can become ineffective within outdated systems without proper integration planning.

5.3. Ethical and Regulatory Concerns in AI Adoption

Governments deploy AI and face higher scrutiny than private organizations [16]. Citizens demand transparency, fairness, and accountability, especially when AI is involved in critical decisions like tax assessments, social benefits eligibility, or legal case processing. If AI-driven IDP is not regulated correctly, it could lead to biased decision-making, incorrect classifications, or wrongful approvals and rejections, significantly affecting people's lives.

Regulatory bodies must define clear guidelines on AI usage, decision transparency, and bias mitigation [17]. Human oversight is essential. AI should augment government operations, not replace human judgment in legally or ethically complex cases. Without the proper checks and balances, AI adoption could result in legal challenges, public backlash, or unintended discrimination in government decision-making.

Table 3 Challenges in Implementing IDP in Government Operations

Challenge	Impact on Government IDP Adoption	Mitigation Strategy
Data Privacy & Security Concerns	Risk of sensitive information leaks	Implement AI-driven encryption & access controls
Legacy IT System Integration	Old infrastructure limits AI usage	Gradual migration with hybrid cloud solutions
AI Transparency & Compliance Issues	AI decisions must be auditable	Develop Explainable AI (XAI) frameworks
Initial Implementation Costs	High upfront investment	Phase-wise rollout & cost-sharing models

6. Case Studies: Real-World Impact of AI in Government IDP

AI-driven Intelligent Document Processing (IDP) isn't just a theoretical concept—it's already reshaping how governments handle paperwork-heavy operations. From tax administration to public benefits processing and law enforcement, AI-powered automation cuts inefficiencies, reduces delays, and improves accuracy. These case studies highlight how government agencies successfully integrate IDP into their workflows, proving that automation isn't just about speed but more competent governance.

6.1. AI-Powered Document Automation in Tax Administration

Tax agencies handle millions of filings, compliance reports, and audit documents annually. Historically, tax assessment has relied on manual document reviews, which have caused delays in processing refunds, identifying fraudulent filings, and ensuring compliance. Sometimes, taxpayers wait months for assessments to be processed simply because the sheer paperwork overwhelms tax offices.

With AI-powered IDP, tax authorities have dramatically changed this process [18]. Machine learning models now scan tax filings, extract relevant financial data, validate it against pre-existing records, and flag inconsistencies automatically. AI-driven anomaly detection identifies suspicious patterns that previously required manual audits, such as inflated deductions or mismatched income reports. As a result, processing times for tax returns have dropped by more than 70% in some regions, and fraud detection rates have improved significantly [19].

Beyond efficiency, automation also ensures greater accuracy in tax compliance, reducing human errors that could lead to incorrect assessments or wrongful audits. Governments that have integrated IDP into their tax workflows are recovering lost revenue, improving taxpayer experience, and making compliance enforcement more effective.

6.2. Digital Transformation in Public Benefits Processing

Social security, unemployment benefits, and welfare programs depend on extensive documentation. Every application must be verified, cross-checked, and processed before approval. In the past, paper-heavy systems and manual verification led to massive backlogs, leaving vulnerable citizens waiting weeks—or even months—for needed benefits.

AI-driven IDP has changed that. Now, public benefits agencies use AI to scan, extract, and verify applicant information in real-time [20]. Instead of waiting for caseworkers to review documents manually, IDP automatically validates

supporting paperwork, such as income statements, employment records, and identity proof, against government databases.

One of the most significant transformations has been in fraud prevention. AI models analyze past cases and identify suspicious applications, such as duplicate claims, false declarations, or forged documents, helping agencies prevent fraudulent payouts while accelerating approvals for genuine cases. The result? Faster processing, reduced fraud, and a better experience for administrators and beneficiaries.

6.3. Law Enforcement Agencies Using AI for Legal Document Analysis

The legal system relies heavily on documents—police reports, witness statements, forensic records, and court filings—which must be processed accurately and stored securely. In the past, law enforcement agencies struggled with slow document retrieval, misplaced records, and inefficient legal workflows that delayed case resolutions.

With AI-powered IDP, law enforcement agencies automatically digitize, classify, and analyze case documents [21]. When a new report is filed, AI can extract key details, link them to existing cases, and flag inconsistencies. Legal teams no longer have to sift through stacks of paperwork—they can instantly access the proper documents, improving response times and case resolution rates.

One of the most impactful changes has been in evidence management. AI-driven IDP automatically organizes digital evidence, timestamps documents, and ensures legal compliance in case submissions. This has reduced errors in legal filings, improved courtroom efficiency, and strengthened case integrity.

Table 4 Efficiency Gains Comparison Before/After IDP

Government Function	Before AI-Driven IDP (Weeks/Days)	After AI-Driven IDP (Hours/Minutes)	Improvement (%)
Tax Return Processing	6-8 weeks	48-72 hours	80%
Public Benefits Verification	4-6 weeks	24-48 hours	85%
Law Enforcement Case Filing	3-4 weeks	12-24 hours	75%
Legal Document Processing	2-3 weeks	6-12 hours	90%

7. The Future of AI-Driven Document Processing in Public Administration

Governments worldwide are under growing pressure to modernize their operations, reduce inefficiencies, and enhance public service delivery. While AI-driven Intelligent Document Processing (IDP) has already improved speed and accuracy in many administrative functions, the next wave of transformation goes beyond automation. The future belongs to self-learning AI, generative AI for decision-making, and a fully automated governance model [22] where document processing happens with minimal human intervention.

7.1. The Rise of Self-Learning AI in Government Workflows

Traditional automation relies on predefined rules and structured data, meaning changes in document formats, regulations, or policies require manual workflow updates. However, self-learning AI is breaking that limitation. AI-driven IDPs can adapt in real-time to new document types, policy updates, and regulatory changes without human reprogramming using machine learning algorithms and continuous data training.

In taxation, for instance, self-learning AI can automatically adjust to new tax laws, updated filing requirements, and evolving fraud tactics, ensuring compliance without constant rule-based modifications. In public benefits processing, AI models can learn from historical patterns of fraudulent claims and refine eligibility checks based on real-time inputs. This shift means governments won't just automate processes—they'll create systems that continuously improve themselves [23].

7.2. Generative AI for Legal and Administrative Decision-Making

Governments handle complex legal and administrative documents that require human expertise to interpret. Legal contracts, compliance reports, policy drafts, and case files involve nuanced language and layered regulations. Generative AI is set to change this landscape. Instead of just processing existing documents, AI will generate legally sound contracts, draft regulatory reports, and summarize legal cases for quick decision-making [24].

For example, legal departments in government agencies could use generative AI to analyze case law, compare past rulings, and generate legal summaries in minutes rather than days. AI can also automate regulatory compliance reports, ensuring accuracy and consistency in government filings. This isn't about replacing human decision-makers—it's about giving them the right tools to work faster, smarter, and more efficiently.

7.3. The Road to Fully Automated Smart Governance

The ultimate vision for AI-driven document processing in public administration is a governance model where document workflows require minimal manual intervention. Citizens applying for permits, benefits, or legal services won't need to wait weeks for approvals—AI will process, verify, and approve applications in real-time, only flagging complex cases for human review.

Imagine a world where tax returns are instantly processed, compliance checks are automatically enforced, and legal cases move through the system without unnecessary delays. AI-powered IDP will seamlessly integrate with blockchain-based recordkeeping, biometric authentication, and predictive analytics, ensuring secure, transparent, and fully digital governance.

While challenges remain—data privacy concerns, AI bias, and ethical considerations—the shift towards innovative governance is already in motion. Governments that invest in AI-driven document processing today will improve efficiency and redefine how public administration serves its citizens [25]. The future of governance is fast, adaptive, and intelligent—and it's closer than we think.

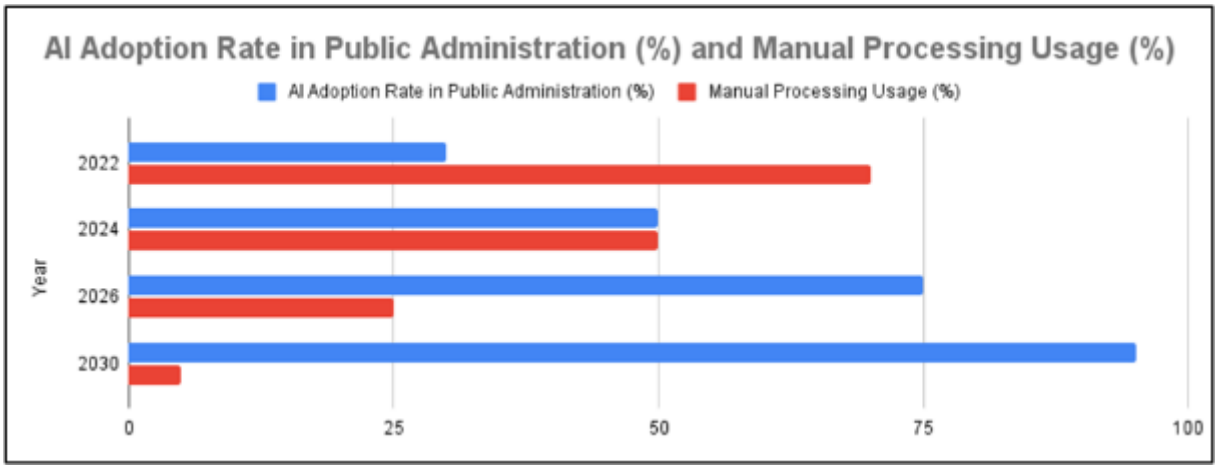

Figure 3 Projected AI Adoption Growth in Government

8. Conclusion

Governments can no longer afford to rely on outdated, manual document processing systems. Traditional workflows' inefficiencies, delays, and human errors slow public service delivery and compromise security, compliance, and citizen trust. AI-driven Intelligent Document Processing (IDP) is not just a tool—it is a fundamental shift toward a faster, more transparent, and more accountable government. By automating document classification, verification, and decision-making, IDP enables agencies to process information in real-time, reduce bureaucratic bottlenecks, and enhance data security. This isn't just about efficiency—it's about building a government that is proactive, responsive, and capable of meeting modern demands.

A strategic and phased approach is essential for public institutions to implement AI-based document processing successfully. Governments must start by identifying high-impact areas, such as taxation, public benefits, and legal compliance, where automation can deliver immediate results. Integration with the existing IT infrastructure must be

carefully planned to ensure a seamless transition from legacy systems. Strong data governance policies, ethical AI frameworks, and cybersecurity measures must be embedded from the start to protect sensitive public data and maintain regulatory compliance. The shift toward AI-driven governance is inevitable—the only question is how fast institutions will adapt. Those who embrace IDP today will deliver more innovative, faster, and citizen-centric public services.

References

[1] Hull, M. S. (2012). Documents and bureaucracy. Annual Review of Anthropology, 41(1), 251-267.

[2] Chiang, L., & Liao, C. N. (2009). The influence of digital standardization on administrative efficiency in e-government: A view of standards development organizations. Systems Research and Behavioral Science: The Official Journal of the International Federation for Systems Research, 26(4), 455-468.

[3] Pingili, R. (2024). How Workflow Optimization Improves Patient Care. International Journal of Research In Computer Applications and Information Technology (IJRCAIT). https://doi.org/10.5281/zenodo.14162809

[4] Haug, N., Dan, S., & Mergel, I. (2024). Digitally-induced change in the public sector: a systematic review and research agenda. Public Management Review, 26(7), 1963-1987.

[5] Ali, S. I. M., Nihad, M., Sharaf, H. M., & Farouk, H. (2024). Machine Learning for Text Document Classification: An Efficient Classification Approach. IAES International Journal of Artificial Intelligence (IJ-AI, 13), 703-710.

[6] Pingili, R. (2025). AI-driven intelligent document processing for healthcare and insurance. International Journal of Science and Research Archive. https://doi.org/10.30574/ijsra.2025.14.1.0194

[7] Løyland, K., Raaum, O., Torsvik, G., & Øvrum, A. (2024). Evaluating compliance gains of expanding tax enforcement. Economica, 91(361), 142-162.

[8] Tátrai, T., Ferk, P., Bianchini, V., & Komsic, N. (2024). Transparency and Monitoring of Public Procurement Contract Performance. Transylvanian Review of Administrative Sciences, 20(71), 78-94.

[9] Sharma, R., Mehta, K., & Sharma, P. (2024). Role of Artificial Intelligence and Machine Learning in Fraud Detection and Prevention. In Risks and Challenges of AI-Driven Finance: Bias, Ethics, and Security (pp. 90-120). IGI Global.

[10] VARMA, P. Transforming Law Enforcement Policies and Governance Procedures: The Benefits of AI Integration.

[11] Ciancarini, P., Giancarlo, R., & Grimaudo, G. (2024). Digital transformation in the public administrations: A guided tour for computer scientists. IEEE Access.

[12] Mergel, I., Dickinson, H., Stenvall, J., & Gasco, M. (2024). Implementing AI in the public sector. Public Management Review, 1-14.

[13] Kolade, T. M., Aideyan, N. T., Oyekunle, S. M., Ogungbemi, O. S., & Olaniyi, O. O. (2024). Artificial Intelligence and Information Governance: Strengthening Global Security through Compliance Frameworks and Data Security. Asian Journal of Research in Computer Science, 17(12), 36-57.

[14] Ghadge, N. (2024). Enhancing Identity Management: Best Practices for Governance and Administration. Computer Science & Information Technology (CS & IT), 219-228.

[15] Latupeirissa, J. J. P., Dewi, N. L. Y., Prayana, I. K. R., Srikandi, M. B., Ramadiansyah, S. A., & Pramana, I. B. G. A. Y. (2024). Transforming public service delivery: A comprehensive review of digitization initiatives. Sustainability, 16(7), 2818.

[16] Alhosani, K., & Alhashmi, S. M. (2024). Opportunities, challenges, and benefits of AI innovation in government services: a review. Discover Artificial Intelligence, 4(1), 18.

[17] Novelli, C., Taddeo, M., & Floridi, L. (2024). Accountability in artificial intelligence: what it is and how it works. AI & Society, 39(4), 1871-1882.

[18] Rahman, S., Sirazy, M. R. M., Das, R., & Khan, R. S. (2024). An exploration of artificial intelligence techniques for optimizing tax compliance, fraud detection, and revenue collection in modern tax administrations. International Journal of Business Intelligence and Big Data Analytics, 7(3), 56-80.

[19] Nembe, J. K., Atadoga, J. O., Mhlongo, N. Z., Falaiye, T., Olubusola, O., Daraojimba, A. I., & Oguejiofor, B. B. (2024). The role of artificial intelligence in enhancing tax compliance and financial regulation. Finance & Accounting Research Journal, 6(2), 241-251.

[20] Pingili, R. (2025). AI-driven intelligent document processing for banking and finance. Fair East Publishers. https://doi.org/10.51594/ijmer.v7i2.1802

[21] Thomas, A. (2024). Exploring the Power of AI-Driven Decision Making in the Judicial Domain: Case Studies, Benefits, Challenges, and Solutions. In Using Traditional Design Methods to Enhance AI-Driven Decision Making (pp. 337-351). IGI Global.

[22] Pandey, J. K. (2024). Unlocking the power and future potential of generative AI in government transformation. Transforming Government: People, Process and Policy.

[23] Filgueiras, F. (2024). Artificial intelligence and education governance. Education, Citizenship and Social Justice, 19(3), 349-361.

[24] Moukadam, S., & Sobrinho, C. (2024). Responsible Generative AI: Navigating Legal Challenges in Artificial Intelligence Adoption Within Auditing & Accounting Firms in Sweden.

[25] Hjaltalin, I. T., & Sigurdarson, H. T. (2024). The strategic use of AI in the public sector: A public values analysis of national AI strategies. Government Information Quarterly, 41(1), 101914.