

## **Optimizing Digital Transformation in Waqf Institutions: A Strategic KPI Framework for Enhanced Transparency and Sustainability**

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### **Abstract**

This paper presents a comprehensive framework of Key Performance Indicators (KPIs) essential for driving strategic digital transformation in Waqf institutions. As these institutions face increasing demands for transparency, accountability, and efficiency, adopting a KPI-driven approach enables them to align their digital initiatives with their mission and optimize resource utilization. The study identifies and categorizes KPIs across key areas, including financial performance, operational efficiency, donor engagement, governance, digital adoption, project

impact, stakeholder satisfaction, innovation, user experience, and sustainability. Through case studies and comparative analysis, the findings demonstrate the transformative potential of KPIs in enhancing operational processes, strengthening donor trust, and achieving long-term sustainability. By leveraging these metrics, Waqf institutions can navigate the complexities of digital transformation while maintaining their commitment to social impact and ethical governance.

**Keywords:** Waqf Institutions, Digital Transformation, Key Performance Indicators (KPIs), Operational Efficiency, Governance, Donor Engagement, Sustainability, Transparency.

## Introduction

2

The imperative for digital transformation within Waqf (endowment) institutions is driven by their unique societal role and the increasing demand for modernized, accountable operations. Historically, Waqf institutions have supported charitable and social welfare initiatives, ensuring sustainable contributions to areas such as education, healthcare, and infrastructure. However, the rapidly advancing digital landscape presents both an opportunity and a challenge for these institutions to adapt. Modernizing through digital tools allows Waqf institutions to enhance transparency, optimize resource management, and engage effectively with a digitally inclined donor base. This shift not only maximizes their social impact but also reinforces their role in the community by ensuring greater accountability and operational efficiency.

Key Performance Indicators (KPIs) are central to guiding digital transformation efforts in Waqf institutions. As these institutions modernize, KPIs provide essential benchmarks for monitoring progress across critical areas such as operational transparency, donor engagement, and efficient resource allocation. By employing clearly defined KPIs, Waqf institutions can identify gaps, track improvements, and make data-driven adjustments, enhancing accountability and responsiveness to stakeholders. For instance, KPIs that measure donor satisfaction and engagement can enable institutions to refine their outreach strategies, fostering stronger, long-term relationships. Additionally, KPIs support informed resource allocation, ensuring that digital tools and processes are implemented where they most effectively improve efficiency and social impact.

The primary objective of this study is to identify, analyze, and evaluate KPIs that are crucial for enhancing operational efficiency, governance, and digital engagement in Waqf institutions. This research aims to provide a structured framework for selecting and assessing KPIs, enabling Waqf institutions to refine their operational processes, strengthen governance, and build stronger connections with a digital-ready donor base. By adopting a systematic KPI approach, Waqf institutions can not only achieve their strategic goals with greater clarity and purpose but also amplify their societal contributions, positioning themselves for sustainable growth in an increasingly digital era.

## Literature Review

## Overview of Digital Transformation in Religious and Non-Profit Sectors

Digital transformation in the religious and non-profit sectors has gained considerable traction, particularly in its potential to enhance operational transparency, stakeholder engagement, and resource allocation (Kamaruzaman & Ishak, 2023; EL FEROUALI et al., 2024). Studies emphasize how digital innovations empower non-profits by improving accountability, optimizing processes, and expanding outreach to younger, technologically adept donors. However, Waqf institutions face unique challenges in digital adoption, such as balancing traditional values with modern technologies and managing varied digital readiness levels across regions. Opportunities within digital adoption for Waqf include enhanced transparency and accountability, both critical to its mission of sustainable social impact. This digital transition has enabled numerous religious organizations to better manage resources, boost donor satisfaction, and maintain high levels of financial transparency key considerations for Waqf institutions aiming for effective modernization (Jewapatarakul & Ueasangkomsate, 2022; Liao et al., 2020).

### Role of KPIs in Waqf Sustainability

Key Performance Indicators (KPIs) have become central tools in guiding digital transformation, providing measurable benchmarks for tracking progress and outcomes. Empirical research suggests that KPIs establish a foundation for strategic decision-making, particularly in governance, donor management, and financial transparency (Mahboub et al., 2023; Lacombe & Jarbouï, 2022). In non-profits, KPIs like Total Funds Raised and Donation-to-Project Allocation Ratio help build donor trust through financial transparency, while governance KPIs, such as Compliance Score and Policy Adherence Rate, ensure alignment with regulatory standards. For Waqf institutions, KPIs like Transparency Index Score and Donor Retention Rate are crucial for evaluating transparency efforts and assessing donor loyalty, both of which contribute to the credibility and long-term sustainability of Waqf operations (Talukder, 2022; Cordery et al., 2023).

### Gap Identification

Although research on digital transformation in non-profits has grown, literature focusing on KPI-driven digital advancements in Waqf institutions remains limited. Few studies provide effective KPI models tailored specifically for Waqf or document case studies on digitalization within these institutions. Most current research addresses non-profits or religious organizations without fully accounting for the distinctive characteristics of Waqf, such as Shariah compliance and region-specific challenges. Additionally, KPI benchmarks for evaluating digital maturity and operational efficiency are underdeveloped in the Waqf sector. Addressing this gap could involve developing KPI frameworks specific to Waqf institutions, assessing their impact on governance, donor engagement, and financial transparency, and creating case studies to showcase best practices and innovative digital solutions (Almomani et al., 2024; Ramdani et al., 2024).

In sum, while existing literature provides valuable insights into digital transformation in the broader religious and non-profit sectors, a tailored approach to KPI-driven digitalization is essential for Waqf institutions to enhance their strategic development, governance, and transparency in alignment with both traditional and contemporary demands.

## Methodology

This study employs a mixed-methods approach, combining quantitative and qualitative data to provide a comprehensive analysis of digital transformation in Waqf institutions. Quantitative metrics, such as KPI

benchmarking, allow for measurable insights into key performance outcomes, while qualitative data from in-depth interviews adds contextual understanding of the sector's unique challenges and opportunities. Primary data will be collected through structured surveys of Waqf institutions actively pursuing digital transformation, yielding quantitative assessments of critical performance metrics. Complementing this, selected case studies will provide concrete examples of effective digital practices. In-depth interviews with experts in digital transformation and Islamic finance further enrich the study, offering sector-specific perspectives on implementing and measuring KPIs. Secondary data from industry reports and prior studies on digital transformation in religious and non-profit organizations will support the primary findings, expanding the analysis and highlighting best practices. This mixed-methods approach, combining benchmarking, statistical modeling, and thematic analysis, ensures a robust evaluation of how KPIs can guide and optimize digital transformation in Waqf institutions.

## Findings

This study's findings offer in-depth insights into how Key Performance Indicators (KPIs) can effectively drive digital transformation in Waqf institutions, impacting key areas such as governance, donor engagement, operational efficiency, and financial transparency. The findings are structured to reflect cumulative insights from both literature and strategic practices as discussed in previous studies (Moghadasnian, 2022; Moghadasnian, 2024; Moghadasnian & Manafi, 2024).

### KPI Identification and Impact

Identifying critical KPIs was a central outcome of this study, with metrics tailored to enhance Waqf institutions' financial performance, operational processes, governance, and donor engagement. Financial KPIs, such as the Transparency Index Score and Donation Growth Rate, were found to significantly enhance donor trust and operational transparency two foundational aspects of a robust digital transformation strategy. KPIs for operational efficiency, including Process Automation Rate and Project Completion Rate, underscore the measurable improvements digital transformation brings to workflow efficiency, resource management, and cost-effectiveness, consistent with findings in the literature on digital integration in non-profit sectors (Mahboub et al., 2023; Talukder, 2022; Cordery et al., 2023).

### Case Study Insights

This study utilized case studies to illustrate the transformative effects of KPI-based digital initiatives within Waqf institutions. For example, one institution's adoption of KPIs such as Digital Maturity Index and Website Traffic Growth Rate led to a marked increase in online donations and improved operational transparency. Another case study highlighted the application of the Project Impact Index and Beneficiaries Reached per Project metrics, which enabled the institution to effectively align its digital transformation efforts with its charitable mission, fostering a more profound social impact. These case studies reflect the documented benefits of KPI-driven management in related fields, as discussed in recent scholarship (Moghadasnian, 2024; Jewapatarakul & Ueasangkomsate, 2022; Almomani et al., 2024).

### Comparative Analysis

A comparative analysis across various Waqf institutions revealed that digital KPI application varies depending on regional digital maturity and institutional infrastructure. Institutions in digitally advanced regions employ sophisticated KPIs related to Digital Adoption and Transformation, whereas those with limited digital resources focus on foundational KPIs such as Financial Performance and Compliance.

This distinction suggests that the implementation of KPI frameworks should be adapted to each institution's technological capacity and stakeholder needs, a perspective that aligns with best practices in digital transformation strategies across sectors (Lacombe & Jarboui, 2022).

### Cumulative Impact of KPI-Driven Digital Transformation

Analyzing the cumulative impact of KPI-driven digital transformation, as evidenced across the literature, shows a consistent pattern of improved transparency, enhanced stakeholder engagement, and strengthened financial resilience within Waqf institutions. The aggregated findings support that KPI frameworks serve as critical tools for aligning digital strategies with the institutional goals of operational transparency and donor satisfaction, reinforcing similar conclusions in studies on the integration of KPIs in digital transformation strategies in the airline and tourism sectors (Moghadasnian & Manafi, 2024; Moghadasnian, 2023; Moghadasnian & Beheshtinia, 2024).

By synthesizing these insights, the findings reaffirm the strategic importance of KPIs in shaping effective digital transformations, enabling Waqf institutions to achieve both operational and mission-driven goals. This synthesis builds on earlier studies and emphasizes the role of structured KPI frameworks as essential to achieving sustainable impact, particularly in sectors with complex stakeholder expectations and regulatory requirements (Moghadasnian, 2024; Cordery et al., 2023; Nuradi et al., 2024).

## 5 Discussion

The findings of this study underscore the essential role of Key Performance Indicators (KPIs) in facilitating digital transformation within Waqf institutions, enhancing operational efficiency, governance transparency, and donor engagement. These results align with broader literature on digital transformation in non-profit and Islamic finance sectors, where KPI frameworks have proven instrumental in guiding complex organizational transitions (Moghadasnian, 2024; Cordery et al., 2023; Nuradi et al., 2024). The discussion here synthesizes the implications of KPI-driven strategies, addresses practical applications for Waqf institutions, and acknowledges study limitations.

### Interpretation of Findings

The results show that adopting a KPI-centered approach to digital transformation enhances transparency, accountability, and stakeholder engagement within Waqf institutions. This is consistent with previous studies in non-profit sectors, which highlight that digital transformation enables more efficient resource management, improved service delivery, and increased donor trust (Mahboub et al., 2023; Jewapatarakul & Ueasangkomsate, 2022). In particular, KPIs such as Transparency Index Score and Donor Retention Rate serve as vital metrics that reflect an institution's commitment to ethical management and mission alignment. Similar to trends observed in the tourism and aviation sectors, KPI-driven digitalization can provide Waqf institutions with a structured approach to tracking progress and achieving sustainable growth (Moghadasnian & Manafi, 2024; Moghadasnian, 2024).

### Strategic Implications

Waqf institutions can leverage KPIs to create a robust framework for digital engagement, improve governance, and optimize operational efficiency. Financial and transparency-focused KPIs, such as Total Funds Raised and Donation-to-Project Allocation Ratio, strengthen donor confidence and accountability critical factors for building long-term relationships with donors and stakeholders. Moreover, operational KPIs such as Process Automation Rate and Staff Productivity Rate offer a measurable way to enhance workflow efficiency and reduce redundancies, which is vital for the sustainable management of Waqf

assets. Adopting KPI-based strategies allows Waqf institutions to pivot from traditional models to data-driven approaches that meet the expectations of a digitally connected donor base, reflecting practices that have been successful in related sectors (Moghadasnian, 2023; Almomani et al., 2024).

### Limitations

While this study provides valuable insights, several limitations must be considered. First, the diversity of Waqf institutions, in terms of size, mission, and geographic location, can impact the generalizability of certain KPIs. Smaller institutions, or those with limited digital infrastructure, may face challenges in implementing complex KPIs related to digital maturity or donor engagement. Additionally, varying levels of digital literacy and access to resources across regions can influence the adoption of digital strategies. The availability and quality of data for benchmarking KPIs also vary, potentially limiting some institutions' ability to measure and compare their progress accurately. Future research should explore region-specific studies and develop tailored KPIs that reflect diverse digital capacities among Waqf institutions (Talukder, 2022).

In conclusion, these findings highlight the strategic importance of adopting a KPI-driven approach for Waqf institutions navigating digital transformation. The cumulative evidence reinforces that, with a structured KPI framework, Waqf institutions can not only enhance operational efficiency and governance transparency but also strengthen their ability to engage with a modern, digital-savvy donor base. Through continued research and practice-based refinement, KPI frameworks can further evolve to support Waqf institutions in fulfilling their missions with greater accountability and societal impact (Moghadasnian & Manafi, 2024; Moghadasnian, 2023).

### Implications and Future Research

This study presents important theoretical and practical implications for Waqf institutions undertaking digital transformation, highlighting the significant role of Key Performance Indicators (KPIs) in achieving transparency, operational efficiency, and enhanced donor engagement. Additionally, it opens avenues for future research to deepen the understanding and application of KPI-driven frameworks in Waqf management and other Islamic endowment institutions.

#### Theoretical Implications

This research contributes to the growing body of literature on digital transformation in Islamic non-profit institutions, particularly Waqf. By demonstrating the unique challenges these institutions face in aligning digital strategies with Islamic principles, this study underscores the need for tailored KPI frameworks that account for specific governance and operational requirements within Islamic finance. Furthermore, this study fills a gap in the literature on KPI applications by offering a structured framework that addresses the dual objectives of achieving operational efficiency and maintaining Islamic values. This aligns with prior studies emphasizing the critical role of KPIs in sectors with unique ethical and regulatory expectations, such as health tourism and public health management in aviation (Moghadasnian, 2024; Moghadasnian & Manafi, 2024).

#### Practical Implications

For Waqf leaders, this study provides actionable insights into how KPI frameworks can be leveraged to navigate digital transformation effectively. KPIs such as Transparency Index Score and Digital Maturity Index serve as valuable tools for building accountability, optimizing resource allocation, and maintaining long-term donor relationships. By prioritizing KPIs that measure operational efficiency and governance,

Waqf institutions can achieve greater clarity in their digital objectives, aligning their strategies with stakeholder expectations and regulatory standards. Additionally, by using KPIs like Donor Satisfaction Rate and Website Traffic Growth Rate, institutions can enhance digital engagement and better serve a technologically engaged donor base. These strategies reflect broader trends in digital management and KPI application across sectors, particularly within tourism and aviation, where similar metrics have proven effective (Moghadasnian, 2023; Mahboub et al., 2023).

### Future Research Directions

Building on these findings, future research can explore several innovative areas within the field of KPI-driven digital transformation for Waqf institutions. One promising area involves the use of Artificial Intelligence (AI) for donor management, where AI-driven insights could help Waqf institutions understand donor preferences, predict donation trends, and personalize outreach efforts. Internet of Things (IoT) applications present another avenue for resource tracking, enabling real-time monitoring of Waqf assets to improve transparency and optimize asset management. Finally, blockchain technology offers potential for enhancing financial transparency and traceability, which is crucial for building trust with donors and stakeholders. Future studies could examine how these emerging technologies can integrate with KPI frameworks to further enhance the effectiveness and accountability of Waqf institutions, contributing to a more robust digital transformation model (Almomani et al., 2024; Moghadasnian, 2024).

In summary, this study highlights that KPI-driven digital transformation holds strategic value for Waqf institutions, positioning them to better fulfill their missions in a modern, digital landscape. As digital tools continue to evolve, further research can refine KPI frameworks to support the unique needs of Waqf institutions, ensuring that they remain impactful and resilient while adhering to their ethical foundations. This continued exploration will not only enhance the theoretical understanding of KPI applications but also provide Waqf leaders with practical pathways to achieving sustained social impact and financial sustainability.

### Conclusion

This study has demonstrated the vital role of Key Performance Indicators (KPIs) in driving digital transformation within Waqf institutions, showcasing how a structured, KPI-driven approach enhances operational efficiency, governance transparency, and donor engagement. Through the identification and application of strategic KPIs, Waqf institutions can navigate the complexities of digitalization while remaining true to their foundational Islamic values. This research aligns with broader literature on KPI effectiveness across sectors, reinforcing that KPIs are not only practical tools for tracking progress but also essential for aligning digital strategies with an institution's mission and stakeholder expectations (Moghadasnian, 2024; Moghadasnian & Manafi, 2024).

The findings affirm that KPI frameworks such as Transparency Index Score, Digital Maturity Index, and Donor Retention Rate provide Waqf institutions with actionable metrics to support decision-making and foster donor trust. These KPIs allow institutions to monitor financial accountability, streamline operations, and engage more effectively with a digital-savvy donor base, ensuring that they can sustain their impact in a rapidly evolving digital landscape. Case studies further validate the positive effects of KPI-based digital transformation, illustrating how Waqf institutions can leverage these metrics to achieve both operational and mission-driven goals.

In conclusion, adopting a KPI-centered digital transformation strategy is essential for Waqf institutions seeking to modernize responsibly and achieve sustainable growth. As technological advancements continue, integrating new tools like Artificial Intelligence, IoT, and blockchain with KPI frameworks will provide Waqf leaders with additional resources to enhance transparency, efficiency, and accountability. This approach not only strengthens the theoretical foundation of KPI applications in Islamic non-profits but also provides practical guidance for leaders to harness the full potential of digital transformation. Ultimately, this study underscores the strategic importance of KPIs in enabling Waqf institutions to meet contemporary challenges, engage stakeholders effectively, and contribute to a more impactful, transparent, and sustainable future.

## References

Almomani, M.A., Abu Hashem, M.A., et al. (2024) 'Exploring Digital Waqf Management: Opportunities and Challenges', *International Journal of Religion*, DOI: 10.61707/ax7vd794.

Cordery, C., Goncharenko, G., Polzer, T., McConville, D. (2023) 'NGOs' performance, governance, and accountability in the age of digital transformation', *The British Accounting Review*, DOI: 10.1016/j.bar.2023.101239.

EL FEROUALI, S., Ezziadi, A., Ouhadi, S. (2024) 'Digital Transformation in the Public Sector: Bibliometric and Systematic Literature Review', *Journal of Economics, Finance and Management Studies*, 7(2). DOI: 10.47191/jefms/v7-i2-21

Jewapatarakul, D., Ueasangkomsate, P. (2022) 'Digital Transformation: The Challenges for Manufacturing and Service Sectors', 2022 Joint International Conference on Digital Arts, Media and Technology, DOI: 10.1109/ECTIDAMTNCON53731.2022.9720411

Kamaruzaman, N.R., Ishak, M.S.I. (2023) 'WAQF INSTITUTIONS: A SYSTEMATIC LITERATURE REVIEW AND FUTURE RESEARCH DIRECTION ON MANAGEMENT, Accountability, And Sustainability', *Advanced International Journal of Business, Entrepreneurship and SMEs*, 0. DOI: 10.35631/aijbes.518014.

Lacombe, I., Jarboui, A. (2022) 'Governance and management of digital transformation projects: An empirical study across organizations', *International Journal of Innovation Science*, DOI: 10.1108/ijis-02-2022-0034.

Liao, H., Zhao, M., Sun, S.-P. (2020) 'A Literature Review of Museum and Heritage on Digitization, Digitalization and Digital Transformation', *Proceedings of the 6th International Conference on Humanities and Social Science Research*, DOI: 10.2991/assehr.k.200428.101

Mahboub, H., Sadok, H., Chehri, A., et al. (2023) 'Measuring the Digital Transformation: A Key Performance Indicator Approach', *International Conference on Knowledge-Based Innovation*, DOI: 10.1016/j.procs.2023.10.455.

Moghadasnian, S. & Beheshtinia, F. (2024). *Advancing Airworthiness Assurance in Airlines: A KPI-Driven Framework for CAMO Excellence*. Presented at the Eighth International Conference on Science and Technology of Electrical, Computer and Mechanical Engineering of Iran, Tehran, Iran, 14 March.

Moghadasnian, S. (2022). *Flight to Excellence: A Comprehensive Guide to Key Performance Indicators in the Airline Industry: Unlocking Success Through Data-Driven Strategies and Performance Metrics*. Aviation and Tourism Research and Innovation Center (ATRIC), 1718 pp. Digital Publication. Tehran, Iran & Milan, Italy.

Moghadasnian, S. (2022). Flight to Excellence: A Comprehensive Guide to Key Performance Indicators in the Airline Industry: Unlocking Success Through Data-Driven Strategies and Performance Metrics. Aviation and Tourism Research and Innovation Center (ATRIC), 1718 pp. Digital Publication. Tehran, Iran & Milan, Italy.

Moghadasnian, S. (2023). Optimizing Airline Health Tourism Services: A Strategic KPI Approach. Presented at the First National Conference on Tourism, Culture, Civilization and History, Lorestan University, Lorestan, Iran, 23 September.

Moghadasnian, S. (2024). Digital Horizons: Transforming Public Health Through Aviation Technologies. Presented at the First National Conference of Healthy Society in the Digital Era, Andisheh Higher Education Institute, Jahrom, Iran, 6 March.

Moghadasnian, S. (2024). Optimization Strategy for Pilgrimage Tourism: Developing a Key Performance Indicators Framework. Presented at the First National Conference on Planning and Development of Tourism, Ferdowsi University of Mashhad, Mashhad, Iran, 30 May.

Moghadasnian, S. (2024). Strategic Synergy in Halal Tourism: Cultivating Cultural Excellence through Data-Driven KPI Integration in Islamic Resort Management. Presented at the First National Conference of Healthy Society in the Digital Era, Andisheh Higher Education Institute, Jahrom, Iran, 6 March.

Moghadasnian, S. (2024). Tourism 4.0 in Iran: Navigating the Digital Transformation for Sustainable and Inclusive Growth. Presented at the 13th International Conference on Tourism, Culture and Art, Tbilisi, Georgia, 2 February.

Moghadasnian, S., & Manafi, F. (2024). Revolutionizing Skies: Strategic Digital Innovations in Global Aviation. Presented at the Eighth International Conference on Science and Technology of Electrical, Computer and Mechanical Engineering of Iran, Tehran, Iran, 14 March.

Nuradi, N., Huda, N., Khatimah, H. (2024) 'Inovasi Wakaf di Era Digital dalam Mengoptimalkan Efisiensi dan Transparansi', El-Mal: Jurnal Kajian Ekonomi & Bisnis Islam, DOI: 10.47467/elmal.v5i6.2773.

Ramdani, R., Widiastuti, T., Mawardi, I. (2024) 'Implementation of Islamic values in waqf governance', Journal of Islamic Marketing, DOI: 10.1108/jima-03-2023-0079.

Talukder, B. (2022) 'Digital Skill Transformation and Knowledge Management in IT Industry', Journal of Information & Knowledge Management, DOI: 10.1142/s0219649222500903.

## Appendix

Appendix A: Comprehensive KPI Inventory for Digital Transformation Director, Waqf Institutions Aligned with "Optimizing Digital Transformation in Waqf Institutions: A Strategic KPI Framework for Enhanced Transparency and Sustainability". To operationalize the strategic framework presented in the article, this appendix delivers the Top 100 role-specific Key Performance Indicators for the Director of Digital Transformation in Waqf Institutions. Organized by strategic dimension, it follows the Universal KPI Development Framework to ensure alignment, measurability and governance.

### How to Use This Inventory

#### 1. Populate Dashboards

- Embed for each KPI: definition & boundaries, formula (numerator/denominator), data source (WMS/ERP, CRM, Web Analytics, GIS, IoT feeds), reporting cadence (daily/weekly/monthly/quarterly).

2. Define RACI
  - Assign *Responsible* (e.g., Digital Ops Manager), *Accountable* (Director of Digital Transformation), *Consulted* (Finance, IT, Community Relations, Legal), *Informed* (Executive Board, Audit Committee).
3. Benchmark Performance
  - Leverage external benchmarks (IWAQF, global waqf peer-group studies) and internal pilot cases (digital-twin asset management, AI forecasting trials) to set “leading practice” thresholds (e.g.,  $\geq 90\%$  DMI,  $\leq 2\%$  APCV).
4. Integrate Across Functions
  - Map upstream/downstream links: e.g., AIFA  $\rightarrow$  FP Forecast Accuracy  $\rightarrow$  PAR  $\rightarrow$  OTPCR  $\rightarrow$  DSR  $\rightarrow$  ADV  $\rightarrow$  Sustainability Score (SS). Ensure end-to-end traceability from digital adoption to mission impact.
5. Embed Advanced Enablers
  - Incorporate real-time monitoring (IoT sensors on endowed assets), AI-driven demand forecasting for donor campaigns, blockchain for donation provenance, digital twins for property management, mobile-waqf portal chatbots, and green-IT measures (CO<sub>2</sub> per project, SAF-equivalent funding ratios).

10

## Strategic Dimensions & KPI Groups

### Financial Performance and Transparency

*(Strategic Dimension: Financial Performance, Transparency)*

- Total Funds Raised (TFR)
- Donor Retention Rate (DRR)
- Donation Growth Rate (DGR)
- Funds Disbursed for Projects (FDP)
- Fundraising Cost Ratio (FCR)
- Transparency Index Score (TIS)
- Financial Report Accuracy Rate (FRAR)
- Donation-to-Project Allocation Ratio (DPAR)
- Average Donation Value (ADV)
- Operational Cost-to-Fund Ratio (OCFR)

### Operational Efficiency and Resource Utilization

*(Strategic Dimension: Operational Efficiency)*

- Process Automation Rate (PAR)
- On-Time Project Completion Rate (OTPCR)
- Staff Productivity Index (SPI)
- IT Infrastructure Utilization Rate (IIUR)
- Average Project Cost Variance (APCV)
- Average Project Cycle Time (APCT)
- Digital Resource Utilization Rate (DRUR)
- Cost Savings from Digital Initiatives (CSDI)
- Resource Allocation Accuracy (RAA)

- Redundant Task Elimination Rate (RTER)

#### Donor Engagement and Satisfaction

*(Strategic Dimension: Stakeholder Engagement)*

- Donor Satisfaction Rate (DSR)
- Donor Lifetime Value (DLV)
- Campaign Response Rate (CRR)
- Donor Churn Rate (DCR)
- Repeat Donation Rate (RDR)
- Donor Engagement Score (DES)
- Campaign Engagement Rate (CGR)
- Social Media Engagement Rate (SMER)
- Donor Feedback Response Time (DFRT)
- Online Donor Base Growth (ODB)

#### Governance and Compliance

*(Strategic Dimension: Governance, Compliance)*

- Governance Compliance Score (GCS)
- Shariah Compliance Rate (SCR)
- Annual Audit Coverage Rate (AACR)
- Policy Violation Count (PVC)
- Policy Update Frequency (PUF)
- License Compliance Rate (LCR)
- Corrective Action Closure Rate (CACR)
- Reporting Compliance Rate (RCR)
- Risk Management Score (RMS)
- Compliance Training Completion Rate (CTCR)

#### Digital Adoption and Transformation

*(Strategic Dimension: Digital Maturity, Transformation)*

- Digital Maturity Index (DMI)
- Digital Project Implementation Rate (DPIR)
- Digital Tool Utilization Rate (DTUR)
- Cloud Solution Adoption Rate (CSAR)
- Digital vs. Manual Process Ratio (DMPR)
- Staff Technology Training Rate (STTR)
- Digital Donation Ratio (DDR)
- Website Traffic Growth Rate (WTGR)
- Online vs. Offline Donation Ratio (OODR)
- Digital Initiative Success Rate (DISR)

#### Project Management and Impact

*(Strategic Dimension: Project Effectiveness, Impact)*

- Project Success Rate (PSR)
- Project Impact Index (PII)
- Time-to-Impact (TTI)

- High-Impact Project Ratio (HIPR)
- Average Cost Overrun (ACO)
- Stakeholder Project Satisfaction (SPS)
- Impact Assessment Completion Rate (IACR)
- Project Risk Mitigation Score (PRMS)
- Annual Project Completion Count (APCC)
- Beneficiary Reach per Project (BRP)

### Stakeholder Engagement and Satisfaction

*(Strategic Dimension: Stakeholder Management)*

- Stakeholder Satisfaction Index (SSI)
- Strategic Partnership Count (SPC)
- Active Stakeholder Count (ASC)
- Stakeholder Meeting Attendance Rate (SMAR)
- Stakeholder Engagement Score (SES)
- Stakeholder Retention Rate (STR)
- Stakeholder Feedback Response Time (SFRT)
- Partnership Growth Rate (PGR)
- Communication Frequency Rate (CFR)
- Issue Resolution Rate (IRR)

### Technology & Innovation Enablers

*(Strategic Dimension: Innovation, Technology Investment)*

- Blockchain Implementation Rate (BIR)
- AI Forecast Accuracy (AIFA)
- Digital Twin Utilization Rate (DTUR)
- IoT Device Utilization Rate (IDUR)
- Machine Learning Model Accuracy (MLMA)
- API Integration Rate (AIR)
- Cloud Service Uptime Rate (CSUR)
- Cybersecurity Compliance Rate (CCR)
- Data Integration Rate (DIR)
- Innovation Implementation Rate (IIR)

### User Experience & Digital Access

*(Strategic Dimension: User Experience, Accessibility)*

- Digital Platform Satisfaction Score (DPSS)
- Mobile Donation Ratio (MDR)
- Website Bounce Rate (WBR)
- Average Session Duration (ASD)
- Online Conversion Rate (OCR)
- Social Interaction Rate (SIR)
- Digital Channel Diversity (DCD)
- Issue Resolution Time (IRT)
- Online Visitor Growth Rate (OVGR)

- App Retention Rate (ARR)

#### Sustainability & Environmental Impact

*(Strategic Dimension: Sustainability, Environmental Impact)*

- Eco-Friendly Project Ratio (EFPR)
- Carbon Footprint Reduction Rate (CFRR)
- Sustainability Score (SS)
- Recycled Materials Usage Rate (RMUR)
- Energy Consumption per Project (ECP)
- Green Project Funding Ratio (GPFR)
- Renewable Initiative Count (RIC)
- Carbon Offset Achieved (COA)
- Environmental Certification Count (ECC)
- Resource Allocation to Sustainability (RAS)