Empowering an Intelligent Digital Government in Saudi Arabia Through Enterprise Information Management

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EXECUTIVE SUMMARY

Digital transformation (DX) is fundamentally changing organizations, markets, and economies across the world. International Data Corporation (IDC) predicts that by 2023, 60% of revenues generated globally will have been delivered by organizations that have undergone DX.

Saudi Arabia’s Vision 2030 initiative and the supporting National Transformation Program (NTP) aim to make the Saudi economy more competitive in this emerging landscape. These initiatives are driving the embrace of DX by the Saudi government and public agencies, enabling the improvement of citizen experiences via digital platforms.

In their efforts to deliver successful DX projects that align with Vision 2030 and the NTP, Saudi government leaders understand that the use of information is critical. However, the narrow approach that many government organizations have taken toward data management is hindering their ability to derive actionable and timeous insights. It is also hampering evidence-based decision-making processes. The growing volumes of information that are being collected are further complicating matters.

To address these concerns, Saudi leaders should focus on ensuring that the right policies and procedures are in place to effectively manage information. The classification of information should be prioritized, supported by governance policies that direct the use of that information. The establishment of an evidence-based decision-making culture and the adoption of solutions that enable the management of information throughout its life cycle should also be encouraged (e.g., enterprise information management [EIM] solutions).

CURRENT STATE OF DIGITALIZATION IN THE KINGDOM

Rapid change is impacting organizations of all sizes and across all industries, in Saudi Arabia and around the world. IDC forecasts that global spending on DX will total $7.5 trillion between 2018 and 2023. DX is about using data to redesign customer experiences, achieve incremental improvements in operational efficiency, and create innovative, scalable business models. Transformation enables organizations to participate in new markets, engage customers in innovative new ways, and reimagine the ways in which they operate. Innovation accelerators like cloud, Big Data analytics, artificial intelligence (AI), the Internet of Things (IoT), and blockchain are bringing the physical and digital worlds closer and providing exceptional customer experiences.
Vision 2030, unveiled in 2016, is an ambitious long-term blueprint for economic and social development. It clearly sets out the goals of reorganizing the Saudi economy (including reducing the country's dependence on oil exports) and recalibrating commercial activity to leverage the kingdom's strengths. Its other goals include reducing unemployment, strengthening small and medium-sized enterprises, and increasing private sector economic participation.

A key dimension of Vision 2030 is a revamp of government services delivery. The government has set an ambitious goal of jumping from 36th to fifth position on the United Nations' E-Government Survey index. To achieve this goal – which is regarded as central to the success of Vision 2030 – Saudi government organizations are undergoing rapid DX in a bid to achieve operational excellence in the delivery of services to citizens, private businesses, and nonprofit entities.

The NTP describes a coordinated effort across 24 government agencies to develop actionable plans for establishing the necessary infrastructure to achieve the goals of Vision 2030. The NTP features six strategic objectives, supported by 63 specific initiatives. The aims include improving the quality of government services, enhancing government communication channels with citizens and businesses, ensuring adequate government responses to communications, and, more broadly, bolstering the government's capacity to deliver transparent, digitalized services.

**Exploring the Findings of the OpenText/IDC Survey**

**Priorities for Government Agencies**

A recent OpenText/IDC survey has confirmed that Saudi government CIOs have put the goals of Vision 2030 and the NTP at the top of their agendas. Figure 1 shows that using digital platforms to improve citizen experience – a clear requirement of the NTP – was listed as a top priority by half of the surveyed respondents. Ensuring security, also cited by 50% of respondents, is critical to increasing access to public services via digital channels. Shrinking infrastructure silos and integrating data and applications, both supported by 42% of respondents, are essential for ensuring that citizen experiences with government services are as seamless as possible.

The relatively low levels of priority for increasing collaboration between departments (37%) and increasing the use of information-driven decision making (32%) highlight key areas for improvement. Collaboration between departments – also known as a "whole-of-government" approach – is a key metric in the UN's E-Government Survey index. Information-driven decision making is a sign of increasing maturity in the delivery of digital services. Saudi Arabia's ranking on this metric is likely to improve over time as data siloes are eliminated (removal of such siloes is a prerequisite for information-driven decision making).

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Drivers of Digital Transformation in Government

The potential impact of DX on the Saudi economy is clearly of significant importance to government CIOs. Economic factors and ease-of-doing-business projects are among the top five DX drivers (see Figure 2). Governmental excellence in the delivery of services (42%) and empowering citizens through digital services (37%) are also top drivers.
Digital Transformation Drivers for Government Organizations

Develop and enable the digital economy — 50%
Contribute to Saudi Arabia’s economic growth — 47%
Achieve governmental excellence in providing a high quality of services — 42%
Empower citizens through digital services — 37%
Facilitate doing business using digital platforms — 32%
Enable digital workforces to improve the productivity of government departments — 29%
Support and develop a common communication platform to interact with citizens and businesses — 26%
Enhance standards of living — 24%
Encourage public-private partnerships — 5%
Establish a standard electronic system — 5%


ENTERPRISE INFORMATION MANAGEMENT

The Volumes — and Importance — of Data are Increasing

As government organizations seek to digitally transform, the amount and magnitude of importance of information will increase. The survey showed that 24% of government CIOs anticipate a significant increase in amounts of data. One-quarter (26%) expect a slight increase, while just 18% expect a decline in data volumes (see Figure 3). Perhaps more telling is the perceived value of this information. Almost all CIOs (97%) believe that information is important for driving decision making around DX projects. Clearly, CIOs believe this information will be critical to the success of DX initiatives in support of Vision 2030 and the NTP.
Given the high importance of data, understanding how organizations manage their growing stores of information is crucial. EIM platforms support standard operational processes that require data and enable the optimal use of all types of information (e.g., to improve evidence-based decision-making processes). These solutions manage the entire life cycles of structured and unstructured data in a highly automated and integrated manner. They offer a compelling answer to the question of how Saudi organizations can manage information effectively.

**Approaches to Information Management**

Figure 4 highlights information management approaches adopted by government organizations in Saudi Arabia. No surveyed organizations reported a prevalence of paperwork. This is important because information captured on paper cannot add value to future digital decision-making procedures. Around one-quarter of the organizations surveyed (26%) have adopted automated document circulation processes but do not share a common archive (i.e., they are not integrated across all functions of the organization). Such organizations have difficulty deriving insights from information. For example, a citizen complaint about a power outage cannot easily be correlated with an operational task like maintenance by the substation that supports that customer (i.e., the complaint and work order exist in different systems).

Just under half of the organizations surveyed (45%) have a common electronic archive that is integrated with their content and document management systems. These organizations are moving closer to deriving value from information. Almost one-quarter of organizations (24%) are more mature: Their electronic workflows are integrated and connected to mobility, cloud, analytics, and web portals. These organizations are already deriving significant value from data and can make evidence-based decisions.

Only 5% of organizations have all forms of information fully automated between departments. These organizations are the most capable of realizing the value of the information at their disposal and can make decisions based on evidence. They are in position to improve the speed and quality of decision-making processes. These results show there is clearly much work to be done in maturing organizational approaches to information management in Saudi Arabia.
Drivers of EIM Adoption

Figure 5 shows that government organizations are adopting EIM solutions to broadly enhance their approaches to information management and DX. EIM solutions support the provision of digital services to citizens and the delivery of efficient egovernment platforms via single public interfaces. About one-third of government CIOs (34%) regard EIM solutions as being largely supportive of DX initiatives. Nearly half of government CIOs (45%) see EIM solutions as instrumental to their pursuit of paperless environments. Figure 4 shows no usage of paper-based content and document management systems, demonstrating that this pursuit has paid dividends.
**Hindrances to EIM Adoption**

The current relatively low levels of maturity that organizations in Saudi Arabia have in terms of information management may be explained by the challenges they face in EIM adoption. Figure 6 shows that the chief constraint facing organizations seeking to adopt EIM solutions is a lack of information governance policies.

The situation is further complicated by a lack of data classification policies. A lack of policies governing the classification and use of different data types can delay organizations in adopting platforms that can be used to generate insights from information and add value to DX efforts. Organizations may be impeded from making sense of information if they have poor visibility of data life cycles and do not utilize document taxonomies. A lack of support from senior management, as well as a reluctance to shift responsibility to lines of business (away from IT staff), point to possible business culture issues in Saudi Arabia that will need to be addressed if the value of collected information is to be utilized effectively.
Ease of Integration with Applications and Across Data Sources Is Driving EIM Solution Selection

Figure 7 shows that 68% of CIOs regard ease of integration with other business applications as the most crucial criterion for selecting an EIM solution. The ability to conduct searches in distributed or decentralized repositories was among the top selection criteria for 34%. This implies that most CIOs seek solutions that do not add an integration overhead. CIOs will look to these solutions as a means of mitigating the problem of disparate data sources. Given the business priority to integrate applications and data, this outlook is no surprise. EIM solutions are also expected to require as little additional development work as possible. Half of respondents stated that no additional coding should be required to configure and customize a solution. Simply put, as organizations adopt EIM solutions, they will seek those that allow for simple integration and possess as much off-the-shelf capabilities as possible.
FIGURE 7

Selection Criteria for EIM Solutions

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>Ease of integration with business applications</td>
<td>68%</td>
</tr>
<tr>
<td>No additional coding needed to configure and customize solutions</td>
<td>50%</td>
</tr>
<tr>
<td>Affordable solutions (price/TCO)</td>
<td>39%</td>
</tr>
<tr>
<td>Ability to conduct searches in distributed/decentralized repositories</td>
<td>34%</td>
</tr>
<tr>
<td>Ease of use/implementation</td>
<td>32%</td>
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<tr>
<td>Records management and storage functionality</td>
<td>32%</td>
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<tr>
<td>Scalability</td>
<td>24%</td>
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<tr>
<td>Ease of integration with portal solutions, social networks, and collaboration tools</td>
<td>18%</td>
</tr>
<tr>
<td>Open source solution</td>
<td>3%</td>
</tr>
</tbody>
</table>

The importance of information cannot be overstated as government agencies in Saudi Arabia push to realize the ambitions of Vision 2030 and the NTP. At this stage, however, many government organizations are not sufficiently mature in their approach to managing information and supporting data-driven decision making. To develop this maturity, Saudi government organizations should consider the following IDC recommendations:

- **Develop policies and procedures to classify and use information.** Before organizations can use information, they need to ensure they have the appropriate governance structures in place. Organizations need to develop policies that classify information and govern its use across the different classes. These policies should guide when and how information is shared between government departments and include memoranda of understanding between agencies. This will increase the ease and speed of generating insights and enhance the ability of the organization to meet regulatory compliance and auditing requirements.

- **Encourage a culture of data-driven decision making at all levels.** Government executives should raise awareness about the importance of information and the need for evidence-based decision making. Senior executives should learn about the value of evidence-based policy making. Data champions should be appointed to ensure the easy sharing of data throughout an organization. These champions should be present in IT and available for consultation across all departments.

- **Build a strategy for accessibility.** Evidence-based decision making can boost agility and improve decision making within an organization at all levels. Increasing access to information through visualization tools will ensure that all levels of the organization (from management to operational staff) are able to receive relevant and timely information that informs their decisions and increases their productivity.

- **Develop processes for data visibility.** Government IT functions do not have enough visibility into all the information flowing through public organizations. Processes should be developed to increase data visibility, create document taxonomies, boost information management, minimize security risks, and unlock data from legacy systems.

- **Deploy EIM solutions.** Organizations are seeking to make sense of the growing volumes of information collected from a variety of sources. EIM suites enable useful insights into (and improved management of) the entire life cycle of a piece of information (structured and unstructured). EIM platforms leverage AI and application programming interfaces (APIs) to ensure a high degree of automation and coverage across the application architecture, regardless of whether information is generated from a person or a machine. Integrated platforms that enable enterprise content management, business intelligence, business process management, and customer experience management capabilities should be considered to ensure end-to-end coverage of information. Priority should be given to systems that ease the integration of new and legacy systems (e.g., though the use of standard APIs).

- **Consider cloud deployment and migration.** As information volumes increase, so too will the difficulty of managing information. This complexity can impact an organization's ability to derive value from information. Because cloud platforms are scalable and feature-rich, they can further enable an organization’s use of leading-edge technologies.
ABOUT OPENTEXT

OpenText EIM helps organizations connect their critical content to their digital business applications. OpenText transforms the way organizations use enterprise content management systems and break the cycle of information underutilization. OpenText solutions also support leading business applications by companies such as SAP, Oracle, and Microsoft.

OpenText's capture and delivery of content (in the context of an organization's key business activities) drives process productivity. Simple and intuitive tools and user experiences boost personal productivity. OpenText's trusted governance and security frameworks provide unmatched levels of control.

Utilized by the largest and most innovative organizations and governments in the world to transform and drive digital business, OpenText's EIM solutions can be deployed on-premises and in private and public clouds.

OpenText, The Information Company, enables organizations to gain insights through market-leading information management solutions, on-premises, or in the cloud.

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