



Governance and Management of Information and Related Technologies Guide

Prepared for Jordan Ahli Bank

ahli | الأهلي

**البنك الأهلي الأردني
Jordan Ahli Bank**

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Revision History

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Disclaimer

This guide is developed based on the Central Bank of Jordan regulations number No.: (65/2016), and ISACA's COBIT 5 framework.

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1. Introduction

Jordan Ahli Bank (JAB) has recognized that the board and executives need to embrace IT like any other significant business asset in the Bank. The **JAB** Board of Directors and executive management—both in the business and IT functions—collaborated and worked together to include IT within the governance and management approach.

In response to the Central Bank of Jordan's regulations number (65/2016), **JAB** has taken the initiative to use the COBIT 5 framework for the Governance and Management of Information and Related technology to comply with the regulation.

COBIT 5 (Control Objectives of Information and Related technologies) provides a comprehensive framework that assists **JAB** in achieving its objectives for the governance and management of enterprise IT. Simply stated, it helps **JAB** create optimal value from IT by maintaining a balance between realizing benefits and optimizing risk levels and resource use. COBIT enables IT to be governed and managed in a holistic manner for the entire enterprise, taking in the full end-to-end business and IT functional areas of responsibility, considering the IT-related interests of internal and external stakeholders.

2. Definitions

- **Governance:** Governance ensures that stakeholder needs, conditions and options are evaluated to determine balanced, agreed-on enterprise objectives to be achieved; setting direction through prioritization and decision making; and monitoring performance and compliance against agreed-on direction and objectives.
- **COBIT 5:** Formerly known as Control Objectives for Information and related Technology (COBIT); now used only as the acronym in its fifth iteration. A complete, internationally accepted framework for governing and managing enterprise information and technology (IT) that supports enterprise executives and management in their definition and achievement of business goals and related IT goals. COBIT describes five principles and seven enablers that support enterprises in the development, implementation, and continuous improvement and monitoring of good IT-related governance and management practices.
- **Control:** The means of managing risk, including policies, procedures, guidelines, practices or organizational structures, which can be of an administrative, technical, management or legal nature. also used as a synonym for safeguard or countermeasure.
- **Enterprise goal:** Business goal
- **Governance framework:** A framework is a basic conceptual structure used to solve or address complex issues; an enabler of governance; a set of concepts, assumptions and practices that define how something can be approached or understood, the relationships amongst the entities involved, the roles of those involved, and the boundaries (what is and is not included in the governance system).
- **Governance of enterprise IT:** A governance view that ensures that information and related technology support and enable the enterprise strategy and the achievement of enterprise objectives. It also includes the functional governance of IT, i.e., ensuring that IT capabilities are provided efficiently and effectively.
- **IT goal:** A statement describing a desired outcome of enterprise IT in support of enterprise goals. An outcome can be an artefact, a significant change of a state or a significant capability improvement.
- **Process:** A collection of practices influenced by the enterprise's policies and procedures that takes inputs from a number of sources (including other processes), manipulates the inputs and produces outputs (e.g., products, services).
- **The Board:** The Board of Directors of the Bank.
- **Senior Executive Management:** Includes Bank's general manager or regional Manager, deputy general-general or deputy regional manager, assistant general manager or assistant regional manager, CFO, COO, Head of Risk Management, Head of Treasury (Investment), Head of compliance, as well as any employee of the bank that has executive authority parallel to any of any of the above-mentioned authorities and functionally and directly linked to the general manager.
- **Stakeholders:** Any interested party in the bank, such as shareholders, employees, creditors, customers, suppliers or external concerned regulatory bodies.
- **Evaluate, Direct and Monitor (EDM):** These governance processes deal with the stakeholder governance objectives—value delivery, risk optimization and resource optimization—and include

practices and activities aimed at evaluating strategic options, providing direction to IT and monitoring the outcome.

- **Align, Plan and Organize (APO):** Provides direction to solution delivery (BAI) and service delivery and support (DSS). This domain covers strategy and tactics, and concerns identifying the best way IT can contribute to the achievement of the business objectives. The realization of the strategic vision needs to be planned, communicated and managed for different perspectives. A proper organization, as well as technological infrastructure, should be put in place.
- **Build, Acquire and Implement (BAI):** Provides the solutions and passes them on to be turned into services. To realize the IT strategy, IT solutions need to be identified, developed or acquired, as well as implemented and integrated into the business process. Changes in and maintenance of existing systems are also covered by this domain, to ensure that the solutions continue to meet business objectives.
- **Deliver, Service and Support (DSS):** Receives the solutions and makes them usable for end users. This domain is concerned with the actual delivery and support of required services, which include service delivery, management of security and continuity, service support for users, and management of data and operational facilities.
- **Monitor, Evaluate and Assess (MEA):** Monitors all processes to ensure that the direction provided is followed. All IT processes need to be regularly assessed over time for their quality and compliance with control requirements. This domain addresses performance management, monitoring of internal control, regulatory compliance and governance.

3. Context

Jordan Ahli Bank (JAB) (previously Jordan National Bank) is a Jordanian institution founded in 1955 and its main offices are in Amman. Ahli Bank was the sixth public shareholding company to be established in Jordan. JAB has two international offices in Cyprus and Palestine.

JAB organization consists of the following main sectors: Business Sector, Credit Sector, and Support Sector. Human Resources and Finance. Jordan Ahli Bank owns three companies fully: Ahli Microfinance, Ahli Brokerage and Ahli Financial Leasing. JAB offer financial products and services in corporate banking, project finance, Small and Medium banking, consumer (retail) banking, Treasury and investment. All bank's products and services are managed through a products and services development unit.

JAB operates through 57 branches, a VIP Hall and 11 SME business centers cross all Jordan governorates. JAB operates more than 100 ATMs in addition to electronic channels that include: Personal Internet Banking, Mobile Internet Banking Corporate Internet Banking and Call Center. JAB offers a set of different personal banking products such as:

Deposits: which include savings, current and call accounts in addition to fixed term deposits. Loans: which covers different types of personal loans such as housing and car loans.

Through its SME unit, JAB offers commercial loans and overdraft facility in addition to a unique chance for small and medium enterprise owners to develop their business and overcome obstacles that they face, which differ from those faced by corporations. We give you financial solutions and advisory to assist the growth of your business with well researched methods. JAB offers a set of Corporate banking services and products through its dedicated corporate branch. This includes syndicated loans, letters of credit and guarantees, commercial loans and overdraft accounts. The Treasury unit of JAB offers services in portfolio management, cash management and correspondent banking.

In addition, JAB has implemented the following service quality activities

1. Activating phone feedback related to services at the business centers.
2. Preparing working schemes to expose clients' experience with the bank and prepare plans and implementation strategies for the year 2016.
3. Developing a mechanism to follow-up on the complaints received as well as ensuring it is in accordance with the Central Bank's instructions on transparency.
4. Participating in implementing the action plans for the SMEs, especially, Service Level Agreements (SLA).
5. Participating along with the New Banking System implementation team to develop a methodology intended to elaborate and follow up on Service Level Agreements (SLA).

4. Scope

The scope of implementing this guide includes all **JAB** operations based on information technology in various branches and departments. All stakeholder parties shall be considered concerned with applying the instructions, each in its respective role and location.

The following parties and their key responsibilities are defined in CBJ (Central Bank of Jordan) regulations in this regard:

- Chairman and members of the Board and outsourced experts:
Shall be assigned responsibilities of overall direction of the IT governance project, approve tasks and responsibilities within the project, and support and provide needed funds.
- The General Manager and his deputies and assistants, and the Heads of operations and branches: Shall be assigned responsibility of hiring the right experienced people in the Bank's operations to represent them in the project and characterize their tasks and responsibilities.
- The General Manager and the directive/steering committee of information technology and the project managers: take over the responsibilities of the IT Governance project management.
- Internal Audit: take over their responsibilities directly upon the instructions, and participate in the IT Governance project, representing the role of internal audit in executive matters as a consultant and independent observer to facilitate the success and completion of the IT Governance project.
- Risks, information security, compliance and legal departments: take over the responsibilities involved in the IT Governance project, representing the role of those departments, and to ensure the representation of the IT Governance project by all interested parties.
- Specialists, holders of technical and professional certificates of (COBIT 5 Foundation COBIT 5 Assessor, COBIT 5 Implementation, CGEIT) standard, who are hired from inside and outside the bank: take over the role of the mentor to disseminate knowledge of the standard and to facilitate the implementation process.
- According to CBJ regulations, **JAB** Board shall have direct responsibility for the five processes of Governance (EDM) (Evaluate, Direct and Monitor) listed in Appendix C.
- **JAB** Board and Risk Management Department shall take over direct responsibility for the process of "Ensure Risk Optimization" (EDM 03) and the process of "APO12 Manage Risk."

5. Objectives

JAB has set the following objectives of the governance and management of information and related technology framework:

- 5.1. Meet stakeholder needs and achieve the objectives of the bank through the utilization of an established governance framework that:
 - Facilitates the creation of value by delivering expected benefits, optimizing risk, and optimizing resources.
 - Provides assurance of information quality to support decision-making.
 - Provides for technological infrastructure that enables the bank to achieve its objectives.
 - Upgrade the bank operations by employing efficient, reliable and purpose-driven technological systems.
 - Strict the risk management of information technology to ensure the necessary protection of the bank's assets.
 - Assist in achieving compliance with the requirements of laws, regulations and instructions as well as to comply with **JAB** policies, strategy and internal working procedures.
 - Improve the reliability of the internal control environment.
 - Maximize the level of satisfaction of information technology users by efficiently and effectively meeting the needs of their work.
 - Management of external party's services entrusted with carrying out operations, services and products.
- 5.2. Utilizes the COBIT 5 process reference model to design efficient and effective solutions to delivery of value to stakeholders.
- 5.3. Separates governance from management consistent with internationally recognized standards for the governance and management of information and related technology.

6. General Policies

6.1. This guide is based on the Central Bank of Jordan's regulations No: (65/2016) , and it is created based on the COBIT 5 framework. It should be reviewed and updated on regular basis to ensure its consistency with any updated regulations, or framework update by ISACA.

6.2. **JAB** shall, through the committee of Information Technology Governance emanating from the Board, review this guide and update it whenever necessary.

6.3. The bank shall publish this guide in any appropriate method for public inspection.

6.4. Committees

- **JAB** has established the required committees to govern and direct the governance framework in the bank; Committee of Governance of Information Technology and Directive/steering Committee of IT.
- **Committee of Governance of Information Technology:**
 - As per the Central Bank of Jordan instruction, the Board shall form a committee of governance of information technology from its members, and this committee shall be formed from three members at least, and preferably include people with experience or strategic knowledge in information technology.
 - The committee shall meet on a quarterly basis at least, maintains documented records of the meetings, and shall have the tasks mentioned in CBJ regulations.
- **Directive/Steering Committee of IT:**
 - The senior executive management shall form necessary directive committees to ensure a strategic alignment of information technology to achieve the strategic objectives of the bank and that shall be in a sustainable manner. Therefore, a committee named the Directive Committee of IT shall be formed and headed by general director and with the membership of senior executive management managers, including the director of information technology, director of risk management and director of information security. One of its members shall be elected to be an observer member in this committee as well as the director of internal audit, and can invite third parties to attend the meetings, when needed.
 - The committee shall document its meetings, provided that periodic meetings shall be once every three months at least, and shall, in particular, carry out the tasks mentioned in CBJ regulations

6.5. Enterprise, IT, Processes Related Goals

The **JAB** Board or delegate of committees will adopt the set of enterprise goals and related IT and process goals as per the COBIT 5 framework. The goals will be reviewed and **JAB** will select the appropriate goals that meet it's stakeholder needs. Appendix A, B and C.

6.6. Policies System

JAB Board or its delegate committees will adopt the necessary policies system for the management and operations of governance of information technology as per Appendix D, and to consider this policy system a minimum with the possibility of the combination of these policies as the work nature requires.

6.7. Information and Reports

- The **JAB** Board and senior executive management will develop the infrastructure and systems necessary to provide information and reports to their users as an anchor for the decision-making processes in the bank.
- Information goals and quality criteria provide guidance to manage information according to its use. Those goals are organized around three dimensions and 15 sub-categories, see table below.

Dimension	Category	Description
Intrinsic	Accuracy	The extent to which information is correct and reliable
	Objectivity	The extent to which information is unbiased, unprejudiced and impartial
	Believability	The extent to which information is regarded as true and credible
	Reputation	The extent to which information is highly regarded in terms of its source or content
Contextual	Relevancy	The extent to which information is applicable and helpful for the task at hand
	Completeness	The extent to which information is not missing and is of sufficient depth and breadth for the task at hand
	Currency	The extent to which information is sufficiently up to date for the task at hand
	Appropriate Amount	The extent to which the volume of information is appropriate for the tasks at hand
	Concise Representation	The extent to which information is compactly represented
	Consistent Representation	The extent to which information is presented in the same format
	Interpretability	The extent to which information is in appropriate languages, symbols and units, and the definitions are clear
	Understandability	The extent to which information is easily comprehended
	Ease of Manipulation	The extent to which information is easy to manipulate and apply to different tasks
Security/Acceptability	Availability	The extent to which information is available when required, or easily and quickly retrievable
	Restricted Access	The extent to which access to information is restricted appropriately to authorized parties

- The **JAB** Board or its delegate will adopt information systems and reports contained in Appendix E, and consider those systems a minimum, determining the owners of such information and reports through which authority to review and use is determined and delegated as needed for the work.
- **JAB** policies and reports will be regularly reviewed and updated to reflect the development of the bank's objectives and operations and in accordance with accepted good practices and standards.

6.8. Organizational Structures:

The **JAB** Board will adopt the organizational structures (hierarchical and committee's structures) concerning the management of resources, processes and projects of information technology, risk

management, information technology, information security, and human resources management that meet the operational requirements of governance and management of information technology contained in Appendix C, and to efficiently and effectively achieve the Bank's objectives.

6.9. Services, Programs and Infrastructure of Information Technology:

- The **JAB** Board or its delegate committees and senior executive management will adopt systems of services, programs and IT infrastructure supporting information (appendix F) to achieve IT governance processes and objectives of information and related technology, and corporate objectives.

6.10. Knowledge, Skills and Experiences:

- **JAB** Management and the Board or its delegate committees shall adopt necessary matrices of competencies (HR Competencies) and policies of human resources management to achieve the requirements of governance of information technology, and to ensure that the appropriate human resources are in place.
- The bank's executive management shall continue to enroll its staff in training and continuing education programs to maintain the level of knowledge and skills necessary to meet and achieve the governance of information technology.

6.11. System of Values, Morals and Behavior:

- The **JAB** Board or its delegate committees shall adopt a code of conduct that reflects professional behavior related to the management of information and its related technology that clearly define the desired behavioral rules and consequences.

The Governance Framework of Information and Related Technology

7. Five key Principles of the Governance Framework

The governance framework of information and related technology at **JAB** will be based on five key principles of COBIT 5:

• **Principle 1: Meeting Stakeholder Needs:**

Enterprises exist to create value for their stakeholders by maintaining a balance between the realization of benefits and the optimization of risk and use of resources. COBIT provides all of the required processes and other enablers to support business value creation through the use of IT. Because every enterprise has different objectives, an enterprise can customize COBIT 5 to suit its own context through the goals cascade, translating high-level enterprise goals into manageable, specific, IT-related goals and mapping these to specific processes and practices.

• **Principle 2: Covering the Enterprise End-to-end:**

COBIT integrates governance of enterprise IT into enterprise governance: It covers all functions and processes within the enterprise; COBIT does not focus only on the ‘IT function’, but treats information and related technologies as assets that need to be dealt with just like any other asset by everyone in the enterprise. – It considers all IT-related governance and management enablers to be enterprise wide and end-to-end, i.e., inclusive of everything and everyone—internal and external—that is relevant to governance and management of enterprise information and related IT.

• **Principle 3: Applying a Single, Integrated Framework:**

There are many IT-related standards and good practices, each providing guidance on a subset of IT activities. COBIT aligns with other relevant standards and frameworks at a high level, and thus can serve as the overarching framework for governance and management of enterprise IT.

• **Principle 4: Enabling a Holistic Approach:**

Efficient and effective governance and management of enterprise IT require a holistic approach, taking into account several interacting components. COBIT defines a set of enablers to support the implementation of a comprehensive governance and management system for enterprise IT. Enablers are broadly defined as anything that can help to achieve the objectives of the enterprise. The COBIT framework defines seven categories of enablers:

1. Principles, Policies and Frameworks
2. Processes
3. Organizational Structures
4. Culture, Ethics and Behavior
5. Information
6. Services, Infrastructure and Applications
7. People, Skills and Competencies

• **Principle 5: Separating Governance from Management:**

The COBIT framework makes a clear distinction between governance and management. These two disciplines encompass different types of activities, require different organizational structures and serve different purposes.

Governance: ensures that stakeholder needs, conditions and options are evaluated to determine balanced, agreed-on enterprise objectives to be achieved; setting direction through prioritization and decision making; and monitoring performance and compliance against agreed-on direction and objectives.

Management: plans, builds, runs and monitors activities in alignment with the direction set by the governance body to achieve the enterprise objectives.

8. Goals Setting and Cascading

Every enterprise operates in a different context; this context is determined by external factors (the market, the industry, geopolitics, etc.) and internal factors (the culture, organization, risk appetite, etc.), and requires a customized governance and management system.

Consistent with the principles and guidance in COBIT 5, **JAB** will create a governance structure based on stakeholder requirement and value delivery. **JAB** will also create a sustainable strategy of governance, management and business alignment to stakeholder needs.

JAB has adopted the COBIT 5 goals cascade mechanism to translate stakeholder needs into specific, actionable and customized enterprise goals, IT-related goals and enabler goals. This translation allows setting specific goals at every level and in every area of the bank in support of the overall goals and stakeholder requirements, and thus effectively supports alignment between the **JAB** needs and IT solutions and services.

Step 1. Stakeholder Drivers Influence Stakeholder Needs

Stakeholder needs are influenced by a number of drivers, e.g., strategy changes, a changing business and regulatory environment, and new technologies.

Step 2. Stakeholder Needs Cascade to Enterprise Goals

Stakeholder needs can be related to a set of generic enterprise goals. These enterprise goals have been developed using the balanced scorecard (BSC) dimensions, and they represent a list of commonly used goals that an enterprise may define for itself. Although this list is not exhaustive, most enterprise-specific goals can be mapped easily onto one or more of the generic enterprise goals.

Step 3. Enterprise Goals Cascade to IT-related Goals

Achievement of enterprise goals requires a number of IT-related outcomes, which are represented by the IT-related goals. IT-related stands for information and related technology, and the IT-related goals are structured along the dimensions of the IT balanced scorecard (IT BSC). COBIT 5 defines 17 IT-related goals, listed in figure 6 in the COBIT 5 framework.

Step 4. IT-related Goals Cascade to Enabler Goals

Achieving IT-related goals requires the successful application and use of a number of enablers. The enabler concept is explained in detail in chapter 5 in the COBIT 5 framework. Enablers include:

- 1) Principles, Policies and Frameworks,
- 2) Processes,
- 3) Organizational Structures,
- 4) Culture, Ethics and Behaviors,
- 5) Information,
- 6) Services, Infrastructure and Applications, and
- 7) People, Skills and Competencies

For each enabler, a set of specific relevant goals can be defined in support of the IT-related goals. Processes are one of the enablers, and appendix G in this document contains a mapping between IT-related goals and the relevant COBIT 5 processes, which then contain related process goals.

Appendix A: Matrix of Enterprise Goals

**The below table is based on CBJ instructions appendix (1), which is based on the COBIT 5 framework created by ISACA*

JAB will adopt the below list of enterprise goals as per the COBIT 5 framework and CBJ regulations, and evaluate the Banks needs on a regular basis to select the most important, relevant goals for each year(s). The Bank’s goals will support its stakeholders needs.

Goal #	Goals	Measurements Criteria of Goal Achievement (Examples)
01	Stakeholder value of business investments	<ul style="list-style-type: none"> • Percent of investments where value delivered meets stakeholder expectations • Percent of products and services where expected benefits are realised • Percent of investments where claimed benefits are met or exceeded
02	Portfolio of competitive products and services	<ul style="list-style-type: none"> • Percent of products and services that meet or exceed targets in revenues and/or market share • Percent of products and services that meet or exceed customer satisfaction targets • Percent of products and services that provide competitive advantage
03	Managed business risk (safeguarding of assets)	<ul style="list-style-type: none"> • Percent of critical business objectives and services covered by risk assessment • Ratio of significant incidents that were not identified in risk assessments vs. total incidents • Frequency of update of risk profile
04	Compliance with external laws and regulations	<ul style="list-style-type: none"> • Cost of regulatory non-compliance, including settlements and fines • Number of regulatory non-compliance issues causing public comment or negative publicity • Number of regulatory non-compliance issues relating to contractual agreements with business partners
05	Financial transparency	<ul style="list-style-type: none"> • Percent of investment business cases with clearly defined and approved expected costs and benefits • Percent of products and services with defined and approved operational costs and expected benefits • Satisfaction survey of key stakeholders regarding the transparency, understanding and accuracy of enterprise financial information • Percent of service cost that can be allocated to users
06	Customer-oriented service culture	<ul style="list-style-type: none"> • Number of customer service disruptions due to IT service-related incidents (reliability) • Percent of business stakeholders satisfied that customer service delivery meets agreed-on levels • Number of customer complaints • Trend of customer satisfaction survey results
07	Business service continuity and availability	<ul style="list-style-type: none"> • Number of customer service interruptions causing significant incidents • Business cost of incidents • Number of business processing hours lost due to unplanned service interruptions • Percent of complaints as a function of committed service availability targets
08	Agile responses to a changing business environment	<ul style="list-style-type: none"> • Level of board satisfaction with enterprise responsiveness to new requirements • Number of critical products and services supported by up-to-date business processes • Average time to turn strategic enterprise objectives into an agreed-on and approved initiative
09	Information-based strategic decision making	<ul style="list-style-type: none"> • Degree of board and executive management satisfaction with decision making • Number of incidents caused by incorrect business decisions based on inaccurate information

		<ul style="list-style-type: none"> • Time to provide supporting information to enable effective business decisions
10	Optimisation of service delivery costs	<ul style="list-style-type: none"> • Frequency of service delivery cost optimisation assessments • Trend of cost assessment vs. service level results • Satisfaction levels of board and executive management with service delivery costs
11	Optimisation of business process functionality	<ul style="list-style-type: none"> • Frequency of business process capability maturity assessments • Trend of assessment results • Satisfaction levels of board and executives with business process capabilities
12	Optimisation of business process costs	<ul style="list-style-type: none"> • Frequency of business process cost optimisation assessments • Trend of cost assessment vs. service level results • Satisfaction levels of board and executive management with business processing costs.
13	Managed business change programmes	<ul style="list-style-type: none"> • Number of programmes on time and within budget • Percent of stakeholders satisfied with programme delivery • Level of awareness of business change induced by IT-enabled business initiatives
14	Operational and staff productivity	<ul style="list-style-type: none"> • Number of programmes/projects on time and within budget • Cost and staffing levels compared to benchmarks
15	Compliance with internal policies	<ul style="list-style-type: none"> • Number of incidents related to non-compliance to policy • Percent of stakeholders who understand policies • Percent of policies supported by effective standards and working practices
16	Skilled and motivated people	<ul style="list-style-type: none"> • Level of stakeholder satisfaction with staff expertise and skills • Percent of staff whose skills are insufficient for the competency required for their role • Percent of satisfied staff
17	Product and business innovation culture	<ul style="list-style-type: none"> • Level of awareness and understanding of business innovation opportunities • Stakeholder satisfaction with levels of product and innovation expertise and ideas • Number of approved product and service initiatives resulting from innovative ideas

Appendix B: Matrix of Information and Related Technology Goals

**The below table is based on CBJ instructions number (2), which is based on ISACA's COBIT 5 framework*

JAB will adopt the below list of IT goals as per the COBIT 5 framework and CBJ regulations. Based on the selected Enterprise Goals from appendix A above, the Bank will select the related IT goals from the table below, based on COBIT 5 goals cascade mechanism.

Goal	Goal Description	Measurement Criteria for Goals Achievement (Examples)	Related Enterprise Goals ⁱ
01	Alignment of IT and business strategy	<ul style="list-style-type: none"> Percent of enterprise strategic goals and requirements supported by IT strategic goals Level of stakeholder satisfaction with scope of the planned portfolio of programmes and services 	01, 03, 05, 07, 11, 13
02	IT compliance and support for business compliance with external laws and regulations	<ul style="list-style-type: none"> Cost of IT non-compliance, including settlements and fines, and the impact of reputational loss Number of IT-related non-compliance issues reported to the board or causing public comment or embarrassment Number of non-compliance issues relating to contractual agreements with IT service providers Coverage of compliance assessments 	01, 05, 07, 09, 12, 17
03	Commitment of executive management for making IT-related decisions	<ul style="list-style-type: none"> Percent of executive management roles with clearly defined accountabilities for IT decisions Number of times IT is on the board agenda in a proactive manner Frequency of IT strategy (executive) committee meetings Rate of execution of executive IT-related decisions 	04, 10, 16
04	Managed IT-related business risk	<ul style="list-style-type: none"> Percent of critical business processes, IT services and IT-enabled business programmes covered by risk assessment Number of significant IT-related incidents that were not identified in risk assessment Percent of enterprise risk assessments including IT-related risk Frequency of update of risk profile. 	02, 10
05	Realised benefits from IT-enabled investments and services portfolio	<ul style="list-style-type: none"> Percent of IT-enabled investments where benefit realisation is monitored through the full economic life cycle Percent of IT services where expected benefits are realised Percent of IT-enabled investments where claimed benefits are met or exceeded 	06
06	Transparency of IT costs, benefits and risk	<ul style="list-style-type: none"> Percent of investment business cases with clearly defined and approved expected IT-related costs and benefits Percent of IT services with clearly defined and approved operational costs and expected benefits Satisfaction survey of key stakeholders regarding the level of transparency, understanding and accuracy of IT financial information 	01, 07
07	Delivery of IT services in line with business Requirements	<ul style="list-style-type: none"> Number of business disruptions due to IT service incidents Percent of business stakeholders satisfied that IT service delivery meets agreed-on service levels Percent of users satisfied with the quality of IT service 	04, 10, 14

		delivery	
08	Adequate use of applications, information and technology solutions	<ul style="list-style-type: none"> • Percent of business process owners satisfied with supporting IT products and services • Level of business user understanding of how technology solutions support their processes • Satisfaction level of business users with training and user manuals • Net present value (NPV) showing business satisfaction level of the quality and usefulness of the technology solutions 	01, 07, 09, 17
09	IT agility	<ul style="list-style-type: none"> • Level of satisfaction of business executives with IT's responsiveness to new requirements • Number of critical business processes supported by up-to-date infrastructure and applications • Average time to turn strategic IT objectives into an agreed-on and approved initiative 	01, 14
10	Security of information, processing infrastructure and applications	<ul style="list-style-type: none"> • Number of security incidents causing financial loss, business disruption or public embarrassment • Number of IT services with outstanding security requirements • Time to grant, change and remove access privileges, compared to agreed-on service levels • Frequency of security assessment against latest standards and guidelines 	04, 06, 11
11	Optimisation of IT assets, resources and Capabilities	<ul style="list-style-type: none"> • Frequency of capability maturity and cost optimisation assessments • Trend of assessment results • Satisfaction levels of business and IT executives with IT-related costs and capabilities 	01, 07, 08, 09, 12
12	Enablement and support of business processes by integrating applications and technology into business processes	<ul style="list-style-type: none"> • Number of business processing incidents caused by technology integration errors • Number of business process changes that need to be delayed or reworked because of technology integration issues • Number of IT-enabled business programmes delayed or incurring additional cost due to technology integration issues • Number of applications or critical infrastructures operating in silos and not integrated 	05, 06, 11
13	Delivery of programmes delivering benefits, on time, on budget, and meeting requirements and quality standards	<ul style="list-style-type: none"> • Number of programmes/projects on time and within budget • Percent of stakeholders satisfied with programme/project quality • Number of programmes needing significant rework due to quality defects • Cost of application maintenance vs. overall IT cost 	01, 03, 13
14	Availability of reliable and useful information for decision making	<ul style="list-style-type: none"> • Level of business user satisfaction with quality and timeliness (or availability) of management information • Number of business process incidents caused by non-availability of information • Ratio and extent of erroneous business decisions where erroneous or unavailable information was a key factor 	08, 16
15	IT compliance with internal	<ul style="list-style-type: none"> • Number of incidents related to non-compliance to policy 	02, 10, 15

	policies	<ul style="list-style-type: none"> • Percent of stakeholders who understand policies • Percent of policies supported by effective standards and working practices • Frequency of policies review and update 	
16	Competent and motivated business and IT personnel	<ul style="list-style-type: none"> • Percent of staff whose IT-related skills are sufficient for the competency required for their role • Percent of staff satisfied with their IT-related roles • Number of learning/training hours per staff member 	
17	Knowledge, expertise and initiatives for business innovation	<ul style="list-style-type: none"> • Level of business executive awareness and understanding of IT innovation possibilities • Level of stakeholder satisfaction with levels of IT innovation expertise and ideas • Number of approved initiatives resulting from innovative IT ideas 	09, 17

Appendix C: IT Governance and Management Processes

**The below table is based on CBJ instructions number (3), which is based on ISACA's COBIT 5 framework*

JAB will adopt the below list of processes goals as per the COBIT 5 framework and CBJ regulations. Based on the selected IT related Goals from appendix B above, the Bank will select the related process goals from the table below, based on COBIT 5 goals cascade mechanism.

Process	Process Title	Process Description	Process Purpose	Numbers of Goals of Directly Related Information and Related Technology Goals ¹
Evaluate, Direct and Monitor (EDM) Processes				
EDM01	Ensure Governance Framework Setting and Maintenance	Analyze and articulate the requirements for the governance of enterprise IT, and put in place and maintain effective enabling structures, principles, processes and practices, with clarity of responsibilities and authority to achieve the enterprise's mission, goals and objectives.	Provide a consistent approach integrated and aligned with the enterprise governance approach. To ensure that IT-related decisions are made in line with the enterprise's strategies and objectives, ensure that IT-related processes are overseen effectively and transparently, compliance with legal and regulatory requirements is confirmed, and the governance requirements for board members are met.	01,03,07
EDM02	Ensure Benefits Delivery	Optimize the value contribution to the business from the business processes, IT services and IT assets resulting from investments made by IT at acceptable costs.	Secure optimal value from IT-enabled initiatives, services and assets; cost-efficient delivery of solutions and services; and a reliable and accurate picture of costs and likely benefits so that business needs are supported effectively and efficiently.	01,05,06,07,17
EDM03	Ensure risk optimization	Ensure that the enterprise's risk appetite and tolerance are understood, articulated and communicated, and that risk to enterprise value related to the use of IT is identified and managed.	Ensure that IT-related enterprise risk does not exceed risk appetite and risk tolerance, the impact of IT risk to enterprise value is identified and managed, and the potential for compliance failures is minimized.	04,06,10,15
EDM04	Ensure resource optimization	Ensure that adequate and sufficient IT-related capabilities (people, process and technology) are available to support enterprise objectives effectively at optimal cost.	Ensure that the resource needs of the enterprise are met in the optimal manner, IT costs are optimized, and there is an increased likelihood of benefit realization and readiness for future change.	09,11,16
EDM 05	Ensure stakeholder transparency	Ensure that enterprise IT performance and conformance measurement and reporting are transparent, with stakeholders approving the goals and metrics and the necessary remedial actions.	Make sure that the communication to stakeholders is effective and timely and the basis for reporting is established to increase performance, identify areas for improvement, and confirm that IT-related objectives and strategies are in line with the enterprise's strategy.	03,06,07

Align, Plan and Organize (APO) Processes				
APO01	Manage the IT Management Framework	Clarify and maintain the governance of enterprise IT mission and vision. Implement and maintain mechanisms and authorities to manage information and the use of IT in the enterprise in support of governance objectives in line with guiding principles and policies.	Provide a consistent management approach to enable the enterprise governance requirements to be met, covering management processes, organizational structures, roles and responsibilities, reliable and repeatable activities, and skills and competencies.	01, 02, 09, 11, 15, 16, 17
APO02	Manage Strategy	Provide a holistic view of the current business and IT environment, the future direction, and the initiatives required to migrate to the desired future environment. Leverage enterprise architecture building blocks and components, including externally provided services and related capabilities to enable nimble, reliable and efficient response to strategic objectives.	Align strategic IT plans with business objectives. Clearly communicate the objectives and associated accountabilities so they are understood by all, with the IT strategic options identified, structured and integrated with the business plans.	01,07,17
APO03	Manage Enterprise Architecture	Establish a common architecture consisting of business process, information, data, application and technology architecture layers for effectively and efficiently realising enterprise and IT strategies by creating key models and practices that describe the baseline and target architectures. Define requirements for taxonomy, standards, guidelines, procedures, templates and tools, and provide a linkage for these components. Improve alignment, increase agility, improve quality of information and generate potential cost savings through initiatives such as re-use of building block components.	Represent the different building blocks that make up the enterprise and their inter-relationships as well as the principles guiding their design and evolution over time, enabling a standard, responsive and efficient delivery of operational and strategic objectives.	01,09,11
APO04	Manage Innovation	Maintain an awareness of information technology and related service trends, identify innovation opportunities, and plan how to benefit from innovation in relation to business needs. Analyze what opportunities for business innovation or improvement can be created by emerging technologies, services or IT-enabled business innovation, as well as through existing established technologies and by business and IT process innovation. Influence strategic planning and enterprise architecture decisions.	Achieve competitive advantage, business innovation, and improved operational effectiveness and efficiency by exploiting information technology developments.	05,08,09,11,17
APO05	Manage Portfolio	Execute the strategic direction set for investments in line with the enterprise architecture vision and the desired characteristics of the investment and related services portfolios, and consider the different categories of investments and the resources and funding constraints. Evaluate, prioritize and balance programmes and services, managing demand within resource and funding constraints, based on their alignment with strategic objectives, enterprise worth and risk. Move selected programmes into the active services portfolio for execution. Monitor the performance of the overall portfolio of services and programmes, proposing adjustments as necessary in response to programme and service performance or changing enterprise priorities.	Optimize the performance of the overall portfolio of programmes in response to programme and service performance and changing enterprise priorities and demands.	01,05,13
APO06	Manage Budget and	Manage the IT-related financial activities in both	Foster partnership between IT	05,06

	Costs	the business and IT functions, covering budget, cost and benefit management, and prioritisation of spending through the use of formal budgeting practices and a fair and equitable system of allocating costs to the enterprise. Consult stakeholders to identify and control the total costs and benefits within the context of the IT strategic and tactical plans, and initiate corrective action where needed.	and enterprise stakeholders to enable the effective and efficient use of IT-related resources and provide transparency and accountability of the cost and business value of solutions and services. Enable the enterprise to make informed decisions regarding the use of IT solutions and services.	
APO07	Manage Human Resources	Provide a structured approach to ensure optimal structuring, placement, decision rights and skills of human resources. This includes communicating the defined roles and responsibilities, learning and growth plans, and performance expectations, supported with competent and motivated people.	Optimize human resources capabilities to meet enterprise objectives.	01,11,13,16,17
APO08	Manage Relationships	Manage the relationship between the business and IT in a formalized and transparent way that ensures a focus on achieving a common and shared goal of successful enterprise outcomes in support of strategic goals and within the constraint of budgets and risk tolerance. Base the relationship on mutual trust, using open and understandable terms and common language and a willingness to take ownership and accountability for key decisions.	Create improved outcomes, increased confidence, trust in IT and effective use of resources.	01,07,12,17
APO09	Manage Service Agreements	Align IT-enabled services and service levels with enterprise needs and expectations, including identification, specification, design, publishing, agreement, and monitoring of IT services, service levels and performance indicators.	Ensure that IT services and service levels meet current and future enterprise needs.	07,14
APO10	Manage Suppliers	Manage IT-related services provided by all types of suppliers to meet enterprise requirements, including the selection of suppliers, management of relationships, management of contracts, and reviewing and monitoring of supplier performance for effectiveness and compliance.	Minimize the risk associated with non-performing suppliers and ensure competitive pricing.	04,07,09
APO11	Manage Quality	Define and communicate quality requirements in all processes, procedures and the related enterprise outcomes, including controls, ongoing monitoring, and the use of proven practices and standards in continuous improvement and efficiency efforts.	Ensure consistent delivery of solutions and services to meet the quality requirements of the enterprise and satisfy stakeholder needs.	05,07,13
APO12	Manage Risk	Continually identify, assess and reduce IT-related risk within levels of tolerance set by enterprise executive management.	Integrate the management of IT-related enterprise risk with overall ERM, and balance the costs and benefits of managing IT-related enterprise risk.	02,04,06,10,13
APO13	Manage Security	Define, operate and monitor a system for information security management.	Keep the impact and occurrence of information security incidents within the enterprise's risk appetite levels.	02,04,06,10,14
Build, Acquire and Implement (BAI) Processes				
BAI01	Manage Programs and Projects	Manage all programmes and projects from the investment portfolio in alignment with enterprise strategy and in a co-ordinated way. Initiate, plan, control, and execute programmes and projects, and close with a post-implementation review.	Realize business benefits and reduce the risk of unexpected delays, costs and value erosion by improving communications to and involvement of business and end users, ensuring the value and quality of project deliverables and maximising their contribution	01,04,05,13

			to the investment and services portfolio.	
BAI02	Manage Requirements Definition	Identify solutions and analyze requirements before acquisition or creation to ensure that they are in line with enterprise strategic requirements covering business processes, applications, information/data, infrastructure and services. Coordinate with affected stakeholders the review of feasible options including relative costs and benefits, risk analysis, and approval of requirements and proposed solutions.	Create feasible optimal solutions that meet enterprise needs while minimising risk.	01,07,12
BAI03	Manage Solutions Identification and Build	Establish and maintain identified solutions in line with enterprise requirements covering design, development, procurement/sourcing and partnering with suppliers/vendors. Manage configuration, test preparation, testing, requirements management and maintenance of business processes, applications, information/data, infrastructure and services.	Establish timely and cost-effective solutions capable of supporting enterprise strategic and operational objectives.	07
BAI04	Manage Availability and Capacity	Balance current and future needs for availability, performance and capacity with cost-effective service provision. Include assessment of current capabilities, forecasting of future needs based on business requirements, analysis of business impacts, and assessment of risk to plan and implement actions to meet the identified requirements.	Maintain service availability, efficient management of resources, and optimisation of system performance through prediction of future performance and capacity requirements.	07,11,14
BAI05	Manage Organizational Change Enablement	Maximise the likelihood of successfully implementing sustainable enterprise wide organisational change quickly and with reduced risk, covering the complete life cycle of the change and all affected stakeholders in the business and IT.	Prepare and commit stakeholders for business change and reduce the risk of failure.	08,13,17
BAI06	Manage Change	Manage all changes in a controlled manner, including standard changes and emergency maintenance relating to business processes, applications and infrastructure. This includes change standards and procedures, impact assessment, prioritisation and authorisation, emergency changes, tracking, reporting, closure and documentation.	Enable fast and reliable delivery of change to the business and mitigation of the risk of negatively impacting the stability or integrity of the changed environment.	04,07,10
BAI07	Manage Change Acceptance and Transitioning	Formally accept and make operational new solutions, including implementation planning, system and data conversion, acceptance testing, communication, release preparation, promotion to production of new or changed business processes and IT services, early production support, and a post-implementation review.	Implement solutions safely and in line with the agreed-on expectations and outcomes.	08,12
BAI08	Manage Knowledge	Maintain the availability of relevant, current, validated and reliable knowledge to support all process activities and to facilitate decision making. Plan for the identification, gathering, organising, maintaining, use and retirement of knowledge.	Provide the knowledge required to support all staff in their work activities and for informed decision making and enhanced productivity.	09,17
BAI09	Manage Asset	Manage IT assets through their life cycle to make sure that their use delivers value at optimal cost, they remain operational (fit for purpose), they are accounted for and physically protected, and those assets that are critical to support service capability are reliable and available. Manage software licenses to ensure that the	Account for all IT assets and optimise the value provided by these assets.	06,11

		optimal number are acquired, retained and deployed in relation to required business usage, and the software installed is in compliance with license agreements.		
BAI10	Manage Configuration	Define and maintain descriptions and relationships between key resources and capabilities required to deliver IT-enabled services, including collecting configuration information, establishing baselines, verifying and auditing configuration information, and updating the configuration repository.	Provide sufficient information about service assets to enable the service to be effectively managed, assess the impact of changes and deal with service incidents.	02,11,14
Deliver, Service and Support (DSS) Processes				
DSS01	Manage Operations	Co-ordinate and execute the activities and operational procedures required to deliver internal and outsourced IT services, including the execution of pre-defined standard operating procedures and the required monitoring activities.	Deliver IT operational service outcomes as planned.	04,07,11
DSS02	Manage Service Requests and Incidents	Provide timely and effective response to user requests and resolution of all types of incidents. Restore normal service; record and fulfil user requests; and record, investigate, diagnose, escalate and resolve incidents.	Achieve increased productivity and minimise disruptions through quick resolution of user queries and incidents.	04,07
DSS03	Manage Problems	Identify and classify problems and their root causes and provide timely resolution to prevent recurring incidents. Provide recommendations for improvements.	Increase availability, improve service levels, reduce costs, and improve customer convenience and satisfaction by reducing the number of operational problems.	04,07,11,14
DSS04	Manage Continuity	Establish and maintain a plan to enable the business and IT to respond to incidents and disruptions in order to continue operation of critical business processes and required IT services and maintain availability of information at a level acceptable to the enterprise.	Continue critical business operations and maintain availability of information at a level acceptable to the enterprise in the event of a significant disruption.	04,07,14
DSS05	Manage Security Services	Protect enterprise information to maintain the level of information security risk acceptable to the enterprise in accordance with the security policy. Establish and maintain information security roles and access privileges and perform security monitoring.	Minimise the business impact of operational information security vulnerabilities and incidents.	02,04,10
DSS06	Manage Business Process Controls	Define and maintain appropriate business process controls to ensure that information related to and processed by in-house or outsourced business processes satisfies all relevant information control requirements. Identify the relevant information control requirements and manage and operate adequate controls to ensure that information and information processing satisfy these requirements.	Maintain information integrity and the security of information assets handled within business processes in the enterprise or outsourced.	04,07
Monitor, Evaluate and Assess (MEA) Processes				
MEA01	Monitor, Evaluate and Assess Performance and Conformance	Collect, validate and evaluate business, IT and process goals and metrics. Monitor that processes are performing against agreed-on performance and conformance goals and metrics and provide reporting that is systematic and timely.	Provide transparency of performance and conformance and drive achievement of goals.	04,07,11,15
MEA02	Monitor, Evaluate and Assess the System of Internal Control	Continuously monitor and evaluate the control environment, including self-assessments and independent assurance reviews. Enable management to identify control deficiencies and inefficiencies and to initiate improvement actions. Plan, organise and maintain standards	Obtain transparency for key stakeholders on the adequacy of the system of internal controls and thus provide trust in operations, confidence in the achievement of enterprise	02,04,15

		for internal control assessment and assurance activities.	objectives and an adequate understanding of residual risk.	
MEA03	Monitor, Evaluate and Assess Compliance With External Requirements	Evaluate that IT processes and IT-supported business processes are compliant with laws, regulations and contractual requirements. Obtain assurance that the requirements have been identified and complied with, and integrate IT compliance with overall enterprise compliance.	Ensure that the enterprise is compliant with all applicable external requirements.	02,04

Appendix D: Minimum Set of Policies for the Governance Framework

**The below table is based on CBJ instructions number (6), which is based on ISACA's COBIT 5 framework*

JAB will adopt the below list of minimum set of policies to govern and manage the processes in the Bank.

Policy Name	Purpose	Scope
Governance of information technology.	Setting necessary rules and standards for the management of information technology resources, including administrative form (centralized or decentralized), and organizational structures, including the activities, functions and responsibilities of the management of these resources, including financial resources.	Operations, services and projects of information technology.
Information Security	Development of the standards necessary to ensure the protection and confidentiality requirements, credibility, availability and compliance to manage IT resources according to accepted international standards in this regard, such as (ISO-IEC 27001/2)	All information and technology associated with it.
Business continuity plans and disaster recovery plan	Establish rules needed to build disaster recovery, business continuity plans, including mechanisms for construction, operation, inspection and training and update those plans to ensure high availability of critical bank operations and standards.	Bank operations critical, and the protection of human beings.
IT Risk Management	Rules and standards for the management of information technology risks to be considered as part of the overall risk of the bank, including governing those risks, responsibilities and tasks assigned to the different parties, and evaluation mechanisms and risk control, in order to enhance decision-making processes based on risk and achieve the objectives of the Bank.	All the bank's operations and inputs related to information technology.
IT Compliance	Development of the standards necessary to ensure compliance with the instructions of the Central Bank and other regulatory bodies and the applicable laws and regulations and the policies of the bank.	All bank threads of information technology operations.
Data Privacy	Establish rules necessary for the protection of data. Addressing disclosures and unauthorized use of standards.	All private data.
Outsourcing	Policy for the use of resources in general and resources of information technology in particular, that the bank-own (In-sourcing) or outsourcing. take into account the instructions and regulations, laws and mimic accepted best international practices in this regard, and take into account the operations location "On-site , Off-site, Near-site, Off-shore" and take into account the service level requirements, and activation of the right of Audit (Audit right) by credible third parties, and to achieve the requirements of business continuity and the controls necessary to protect to the confidentiality and credibility as well as the efficiency and effectiveness in the use of resources.	All the bank's operations.
Project Portfolio Management	Development of standards for the management of projects, including phases of the project and the governance necessary to achieve the requirements relating to quality (Quality Requirements) and those relating to the protection and confidentiality (Confidentiality Requirements) and those relating to compliance achieve the objectives of the bank and its operations.	All Bank projects related to information technology.
Asset management	Setting rules for the classification of the degree of risk data and the various regulations and standards, and to identify owners and controls protected during the various stages of their life cycle.	Data, hardware, software and tools associated with it.
Acceptable use of information technology resources	The development of rules and standards to determine acceptable behavior and unacceptable for information technology resources.	Hardware, software, applications and networks, including the Internet and e-mail.
Change Management	Development of standards necessary to ensure the credibility of the change in documenting the necessary approvals from the assets subject to change owners.	All information technology operations.
Mainframes/servers	To establish rules and standards to reduce the processes of access and illegal use of devices.	All organizations and central-owned or managed by the Bank for all development environments, testing, operation, including operating and other tools associated systems.
Client Machines	The development of rules and standards of behavior and other technology to ensure the protection of sensitive data stored on the devices.	All the client machines linked to networks or stand alone machines.

Policy Name	Purpose	Scope
Portable devices	The development of rules and standards to ensure the protection of sensitive data stored on portable devices.	All portable devices such as Laptop, PDA, Smartphone, USB Memory Cards, ... etc.
User Access Management	The development of policy for access management; granting access to the data and the software and hardware, according to the business needs to ensure confidentiality, credibility and availability of the resources of information technology.	All software and hardware, databases.
System Development Lifecycle	Development of policy for the development and acquisition of software.	The new/upgraded software developed in house or purchased.
Service Level Management	The development of rules and criteria for identifying and accepting, documenting and measuring, monitoring and improving the level of services provided both internal and external parties to ensure optimal utilization of resources.	All agreements and contracts and obligations with internal and external parties.
Backup and Restore	The development of policy for backup and recovery mechanisms to ensure high availability of data, credibility and confidentiality.	Data in operating environments where needed.
Data Retention	Development of policy for the amount of the data that should be available either in paper or those located on computers and various applications and the length of time to be retained and the trade-off between the amount of data available and the speed and performance in data access.	All the hardware and software tools, means and data retention.
Purchasing Policy	The development of rules and standards of the evaluation of external suppliers.	All the technical equipment and related programs.
Remote Access	The development of rules and standards for the remote access to the bank's computer networks and devices.	Parties and partners, internal and external, such as service providers, and all development environments and testing and operation of devices and networks, including, but not limited to Internet networks, and networks encrypted, and lines of different communication such as (Frame relay, ISDN, VPN, DSL, MPLS)
Networks	The development of rules and standards to ensure efficiency and effectiveness requirements in the use of the network elements.	All network elements in all environments.
Wireless networks	The development of rules and standards in order to protect sensitive data transmitted over wireless networks from interception and illegal use.	Including all the physical and virtual wireless networks.
Firewalls	Setting minimum rules and standards governing the protection of the bank's firewalls.	All the Firewalls operating in all environments such as (DMZ, Proxy, External DNS, VPN, Routers, Switches, Servers, ... etc)
Penetration Testing and Vulnerability Assessment	Testing the devices and network elements to ensure no security breaches/vulnerabilities in place.	All the technical assets of the Bank of servers/clients/ and components of the networks and software.
Public Branch Exchange	Setting minimum tandards for the protection of the public branch exchange ensure the protection and confidentiality of the data and the Bank's operations from illegal use.	All owned and non-owned devices in the bank.

Appendix E: Minimum Set of Reports for the Governance Framework

**The below table is based on CBJ instructions number (7), which is based on ISACA's COBIT 5 framework*

JAB will adopt the below list of minimum set of reports to ensure proper reporting is maintained in the bank, the reports are considered as an anchor for the decision-making processes in the bank

1. Authority Matrix: Matrix defines the privileges granted to all programs and databases and network elements, separating the user name, function and powers or privileges.
2. IT Risk Factor Analysis
3. IT Risk Scenario Analysis
4. IT Risk Register
5. RACI Chart (Responsible/ Accountable / Informed and Consulted)
6. IT Risk Profile
7. IT Risk Report
8. IT Risk Map or Heat Map
9. Risk Universe, Appetite and Tolerance
10. Key Risk Indicators
11. Risk Taxonomy
12. Risk and Control Activity Matrix (RCAM)
13. Information Security budget
14. MIS Reports
15. Audit Strategy
16. IT Audit Charter and Engagement Letter
17. IT Audit Plan
18. HR Matrix
19. Assurance Findings Register
20. Assurance Report Repository
21. The best international standards for the management of projects and information technology resources, and risk management, information technology, security, protection and checking on information technology

Appendix F: Services and Software Infrastructure for Information Technology

**The below table is based on CBJ instructions number (8) please refer to it for further details.*

JAB will adopt the below list of systems of services, programs and IT infrastructure supporting information to achieve the IT governance processes and objectives of information and related technology.

1. Incident Management Services
2. IT Assets Inventory
3. Awareness of information security good practices
4. Security and protection of data and logical information
5. Surveillance Information Security
6. SOFTWARE auditing IT
7. Hosting and controls the physical security and environmental Physical and Environmental Security for server rooms and chambers of communications and electricity supply.

Appendix G: Goals Cascade

Figure 22—Mapping COBIT 5 Enterprise Goals to IT-related Goals

			Enterprise Goal																
			1. Shareholder value of business investments	2. Portfolio of competitive products and services	3. Managed business risk (regardless of asset)	4. Compliance with external laws and regulations	5. Financial transparency	6. Customer-oriented service culture	7. Business service continuity and availability	8. Agile responses to a changing business environment	9. Information-based strategic decision making	10. Optimisation of service delivery costs	11. Optimisation of business process functionality	12. Optimisation of business process costs	13. Managed business change programmes	14. Operations (and staff) productivity	15. Compliance with internal policies	16. Skilled and motivated people	17. Product and business innovation culture
IT-related Goal			Financial				Customer				Internal				Learning and Growth				
Financial	01	Alignment of IT and business strategy	P	P	S			P	S	P	P	S	P	S	P			S	S
	02	IT compliance and support for business compliance with external laws and regulations			S	P											P		
	03	Commitment of executive management for making IT-related decisions	P	S	S				S	S		S		P				S	S
	04	Managed IT-related business risk			P	S			P	S		P		S		S	S		
	05	Realised benefits from IT-enabled investments and services portfolio	P	P				S	S		S	S	P		S				S
	06	Transparency of IT costs, benefits and risk	S		S		P			S	P		P						
Customer	07	Delivery of IT services in line with business requirements	P	P	S	S		P	S	P	S		P	S	S			S	S
	08	Adequate use of applications, information and technology solutions	S	S	S			S	S		S	S	P	S		P		S	S
Internal	09	IT agility	S	P	S			S		P			P		S	S		S	P
	10	Security of information, processing infrastructure and applications			P	P			P								P		
	11	Optimisation of IT assets, resources and capabilities	P	S					S		P	S	P	S	S				S
	12	Enablement and support of business processes by integrating applications and technology into business processes	S	P	S				S		S	P	S	S	S				S
	13	Delivery of programmes delivering benefits, on time, on budget, and meeting requirements and quality standards	P	S	S				S			S		S	P				
	14	Availability of reliable and useful information for decision making	S	S	S	S			P		P		S						
Learning and Growth	15	IT compliance with internal policies			S	S											P		
	16	Competent and motivated business and IT personnel	S	S	P			S		S						P		P	S
	17	Knowledge, expertise and initiatives for business innovation	S	P				S		P	S		S		S			S	P

Figure 23—Mapping COBIT 5 IT-related Goals to Processes (cont.)

		IT-related Goal																
		01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17
COBIT 5 Process		Financial					Customer			Internal							Learning and Growth	
Build, Acquire and Implement	BAI01 Manage Programmes and Projects	P		S	P	P	S	S	S			S		P			S	S
	BAI02 Manage Requirements Definition	P	S	S	S	S		P	S	S	S	S	P	S	S			S
	BAI03 Manage Solutions Identification and Build	S			S	S		P	S			S	S	S	S			S
	BAI04 Manage Availability and Capacity				S	S		P	S	S		P		S	P			S
	BAI05 Manage Organizational Change Enablement	S		S		S		S	P	S		S	S	P				P
	BAI06 Manage Changes			S	P	S		P	S	S	P	S	S	S	S	S		S
	BAI07 Manage Change Acceptance and Transitioning				S	S		S	P	S			P	S	S	S		S
	BAI08 Manage Knowledge	S				S		S	S	P	S	S			S		S	P
	BAI09 Manage Assets		S		S		P	S		S	S	P			S	S		
	BAI10 Manage Configuration		P		S		S		S	S	S	P			P	S		
Define, Service and Support	DSS01 Manage Operations	S		P	S		P	S	S	S	P			S	S	S	S	
	DSS02 Manage Service Requests and Incidents			P			P	S		S				S	S		S	
	DSS03 Manage Problems		S		P	S		P	S	S		P	S		P	S	S	
	DSS04 Manage Continuity	S	S		P	S		P	S	S	S	S	S	P	S	S	S	
	DSS05 Manage Security Services	S	P		P			S	S			S	S		S	S		
	DSS06 Manage Business Process Controls		S		P			P	S		S	S	S		S	S	S	S
Monitor, Evaluate and Assess	MEA01 Monitor, Evaluate and Assess Performance and Conformance	S	S	S	P	S	S	P	S	S	S	P		S	S	P	S	S
	MEA02 Monitor, Evaluate and Assess the System of Internal Control		P		P		S	S	S		S				S	P		S
	MEA03 Monitor, Evaluate and Assess Compliance With External Requirements		P		P	S		S			S					S		S

Appendix H: References

- Central Bank of Jordan regulations number No.: (65/2016)
 - ISACA COBIT 5 framework.
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