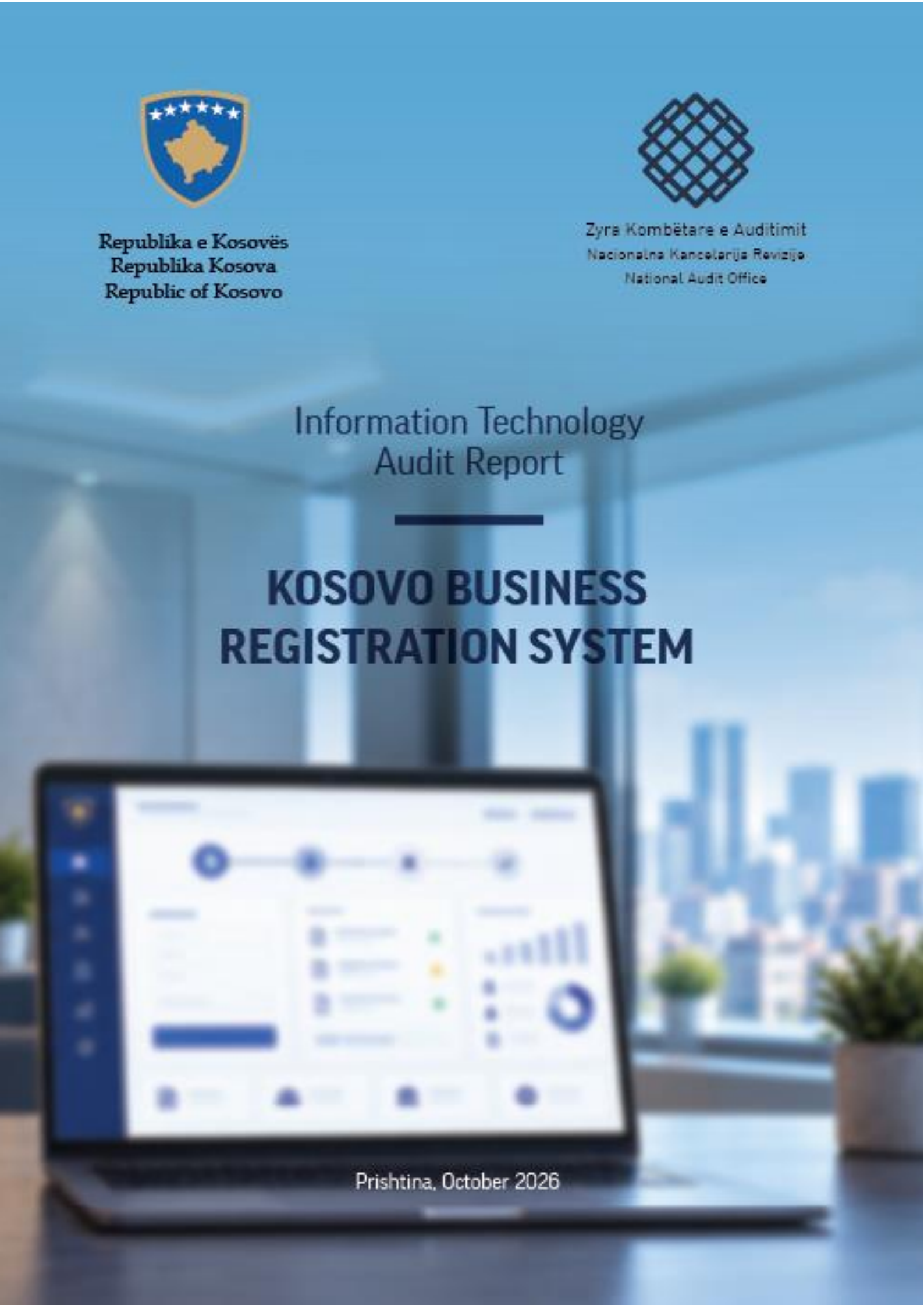
Republika e Kosovës
Republika Kosova
Republic of Kosovo

Zyra Kombëtare e Auditimit
Nacionalna Kancelarija Revizije
National Audit Office

Information Technology
Audit Report

KOSOVO BUSINESS REGISTRATION SYSTEM



Prishtina, October 2026

The Auditor General of the Republic of Kosovo is the highest institution of economic and financial control, to which the Constitution and the Law[1] guarantee functional, financial and operational independence.

The National Audit Office is an independent institution that assists the Auditor General in carrying out his/her duties. Our mission is to contribute effectively to public sector accountability through quality audits, promoting public transparency and good governance, and fostering economy, effectiveness and efficiency of government programs for the benefit of all. In this way, we increase confidence in the spending of public funds and play an active role in ensuring the interest of taxpayers and other stakeholders in increasing public accountability. The Auditor General is accountable to the Assembly for the exercise of the duties and powers set out in the Constitution, the Law, the By-Laws and international public sector auditing standards.

This audit was conducted in accordance with the International Standards of Supreme Audit Institutions (ISSAI 3000 [2]and the Guidance on Audit of Information Systems (GUID 5100 [3]).

Information technology audits undertaken by the National Audit Office are an examination and review of Information Technology Systems and related controls to provide assurance across four principles: legality, efficiency [4], economy [5], and effectiveness.[6] of information technology systems and related controls.

The Auditor General has issued formal approval with respect to this audit report "Kosovo Business Registration System (KBRS) "in consultation with the Director of the Audit Department Samir Zymberi, who supervised and managed the audit.

The team that complied this report:

Poliksena Berisha, Team Leader; and
Atdhe Gashi, Team Member.

NATIONAL AUDIT OFFICE – Address: St. Ahmet Krasniqi no. 210, Arbëria Neighbourhood, Pristina 10000, Kosovo
Tel: +383(0) 38 60 60 04/1011
http://zka-rks.org

[1]Law 05_L_055 on the Auditor General and the National Audit Office of the Republic of Kosovo.
[2]ISSAI 3000 – Standards and guidelines for performance auditing based on INTOSAI Auditing Standards and practical experience.
[3] GUID 5100 – Guidance on audit of information systems issued by INTOSAI.
[4]Efficiency – The principle of efficiency means getting the most out of available resources. It is about the relationship between the resources employed and the results delivered in terms of quantity, quality and time.
[5]Economy – The principle of economy means minimizing the cost of resources. The resources used must be available on time, in the right quantity and quality, and at the best price.
[6] Effectiveness – The principle of effectiveness implies achieving predetermined objectives and achieving expected results.

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List of abbreviations

KPA	Kosovo Privatization Agency
KBRA	Kosovo Business Registration Agency
AIS	Agency of Information Society
TAK	Tax Administration of Kosovo
GG	Government Gateway
MIETI	Ministry of Industry, Entrepreneurship, Trade and Innovation
UIN	Unique Identification Number
KBR	Kosovo Business Registry
LLC	Limited Liability Company
IT	Information Technology

Executive Summary

The Kosovo Business Registry System represents a key component of the state infrastructure for the registration, administration and data management of businesses in the Republic of Kosovo. The system supports the provision of electronic services to businesses and citizens, enabling the registration, modification and deregistration of businesses, as well as contributing to increasing the transparency, standardization and efficiency of administrative processes of electronic public services to citizens and commercial entities. Furthermore, its integration with the e-Kosova platform has created the basis for advancing the digital transformation of public services in this area.

The audit results confirm that the system has managed to significantly support the basic processes of business registration and administration, providing a functional platform for data management and cooperation between the Kosovo Business Registration Agency and businesses-citizens. However, the assessment of application controls and application security has identified deficiencies that limit the automation of processes, the quality of application controls and the level of information security.

In terms of **Input controls,** it has been noted that the system does not fully ensure automatic validation of input data and full implementation of legal and business requirements. The lack of clear identification of mandatory fields, user instructions and specific error messages complicates the application process and the efficiency of the business registration system. Also, legal rules, such as the criteria for business name distinctiveness, are not integrated into the automatic system controls, creating the need for manual verifications and affecting the efficiency of the process and resulting in delays in service provision.

In terms of **Output controls,** the system does not provide full support for reporting, monitoring and automation of processes. The lack of analytical reports at the municipal level, shortcomings in statistics on active and inactive businesses, as well as limitations in functionalities for correcting cases affect the quality of monitoring and decision-making. Also, the processes of registration, change and deregistration of businesses are not fully digitalized, as they continue to rely partially on physical documentation and manual procedures. This has occurred due to legislation that creates restrictions and the lack of some functionalities and inter-institutional integrations, which affects the efficiency of the implementation of the process through the system and delays in the provision of services.

Regarding **application security controls,** the audit found that, although there are operational technical measures for change management and backup, the lack of formalized policies and procedures limits the effectiveness of information security governance. Weaknesses in password management, the lack of a formalized change management process, the concentration of critical roles in a single IT officer, and the lack of documented disaster recovery procedures increase the risk of unauthorized access, weakening internal controls, and difficulties in ensuring service continuity in the event of incidents.

Therefore, the identified issues and systemic risks form above underscore the critical need for the Ministry of Industry, Entrepreneurship, Trade and Innovation, namely the Kosovo Business Registration Agency (KBRA) as administrator, to implement comprehensive improvements to the Kosovo Business Registration System.

We have formulated a total of 16 strategic recommendations to resolve these deficiencies which are presented in Chapter 5 of this report.

Entity Response

The Ministry of Industry, Entrepreneurship, Trade and Innovation, namely the Kosovo Business Registration Agency, has accepted the audit findings and conclusions and has pledged to implement the recommendations given.

1 Introduction

The Kosovo Business Registration Agency (KBRA) is an agency that operates within the Ministry of Industry, Entrepreneurship, Trade and Innovation and has as its main activity the registration and re-registration of various businesses, including individual businesses, partnerships (general and limited), limited liability companies and joint stock companies, as well as foreign business organisation, public and social enterprises, agricultural cooperatives and other entities under the jurisdiction of the Kosovo Privatization Agency; also, this framework includes as well the licensing process for physical security companies.

The Ministry of Industry, Entrepreneurship, Trade and Innovation, through the Kosovo Business Registration Agency, administers the business registration system in Kosovo. Through this agency, the ministry ensures that businesses are legally registered and provided with a unique identification number. It also enables the maintenance of an accurate and transparent business registry, updating their data, thus contributing to the smooth functioning of the market.

The data from the Kosovo Business Registration Agency (KBRA) illustrate cumulative registrations reaching 265,992 businesses by 2026, reflecting the development of nation's private sector. Of these 134,914 businesses maintain an active status, contrasted against 93,532 passive status and 37,546 formally deregistered enterprises.

The Business Registration System is interconnected through the intermediary platform (Government Gateway - GG), which enables the exchange and provision of data to various state institutions.

Specifically, the system is interconnected with:

- Kosovo Tax Administration – where reciprocal data synchronization for businesses takes place;
- Civil Status Registry – the source from which citizens' personal data of Republic of Kosovo is accessed via GG;
- Kosovo Customs**:** Receives business registration data directly from the Business Registry;
- Kosovo Cadastral Agency – who consumes the official address data provided by the Kosovo Cadastral Agency.

The Business Registration Agency registers all Business Organisations and Foreign Business Organisations in accordance with Law No. 02/L-123 on Business Organisations and Law No. 06/L-016 on amendments and supplements to the Law on Commercial Companies.

Pursuant to the active Law No. 02/L-123 on Business Organizations and Law No. 06/L-016 on amendments and supplements to the Law on Business Organizations, the Kosovo Business Registration Agency (KBRA) serves as the central authority for registering both local and foreign commercial companies.

The Kosovo Business Registration Agency (KBRA) operates a unified, nationwide network of 36 municipal registration centers connected directly to its central headquarters. This 'one-stop-shop' model is set up to improve operational efficiency and ease experience for the businesses by shortening setup times and boosting regulatory transparency.

The Kosovo Business Registry System is an electronic platform that enables users to register in the system and apply online for business registration, also providing access through their access to the e-Kosova platform, as well as submit requests for changes and other administrative services. After confirming the account, users can manage their business data electronically.

The business registration system includes a wide range of functions that cover the entire life cycle of a business, from initial creation to changes and deregistration, of which only the registration part has been implemented online on the e-Kosova platform so far.

The system enables users to register various types of businesses such as Sole Proprietorship, Limited Liability Company (LLC), Joint Stock Company, General Partnership, Limited Partnership, Foreign Business Organisation and Agricultural Cooperatives.

In addition to business registration, the centralized business registry processes all subsequent corporate updates. Users can legally change their address, business activities, share capital, owners, and legal representatives, as well as complete final business deregistration-closure.

2 Audit objective and Audit Areas

The objective of this audit is to assess application controls and application security for the Kosovo Business Registration System.

This audit aims to provide relevant recommendations to the MIETI, specifically the Kosovo Business Registration Agency (KBRA), and other competent institutions to strengthen and improve application controls within the Business Registration Information System.

Table 1: Audit areas and audit issues

Audit areas	Audit issues
1. Application Controls	1. Input controls
	2. Output data controls
	3. Application security controls

The scope of this audit is the Kosovo Business Registration Agency (KBRA), with municipal business registration centers (two municipal centers were included as test samples during this audit, Ferizaj and Fushë Kosova), which is responsible for the development and maintenance of the Business Registration System and the relevant division for the administration of information technology systems.

The purpose of this audit is to assess the 'Kosovo Business Registration System.' which focuses on three key areas: input controls, output controls, and application security controls. The audit primarily covers operations from 2025 to 2026. It also reviews the original 2019 system development contract and its terms of reference.

3 Audit Findings

The mission of KBRA is to create a business-friendly environment in Kosovo through the provision of highly accessible, dependable, and efficient public services.

The Kosovo Business Registration System constitutes a vital foundation for electronic services and has significantly modernized business administration. However, this audit identified notable deficiencies within its application controls and security frameworks. Deficiencies exist in automated data validations, reporting capabilities, process automation, and inter-institutional system integrations. Furthermore, the Agency has not fully developed or implemented formalized information security policies or business continuity plans. As a result, dependency on manual interventions has increased, the system's reliability and sustainability as well as the quality of services for businesses may be negatively affected.

In August 2026, concerns were reported regarding the possible exposure of personal data through the Kosovo Business Registration (KBR) system, potentially compromising individuals' privacy.

In this regard, at the time of drafting the report, the audit team paid a visit to the Kosovo Business Registration Agency (KBRA) and verified the functionality of the Business Registration System concerning the publication of the Statute and the anonymisation of personal data. It was established that the KBRA had activated a functionality on its portal following consultations with the Information and Privacy Agency and preliminary testing. However, after it became operational, media reports raised concerns about the possible exposure of personal data (although no such cases had been reported to the KBRA). In response, the KBRA took action and temporarily suspended the functionality pending the development of a new solution. Poor quality of scanned documents and system overload were identified as possible contributing factors; however, the definitive technical cause had not been determined.

Through testing and a review of supporting documentation, the audit team confirmed that this functionality on the KBRA portal had been disabled.

The following part details the identified issues related to input controls, output controls, and application security controls.

3.1 Application controls

Application controls are controls over input, processing, output, and security functions. They include methods to ensure that: only complete, accurate, valid, and reliable data is entered and updated in an information system, processing accomplishes the correct task, and the result of the processing meets expectations, and data is retained.[7]

[7] Information Technology Audit Manual, Application Controls.

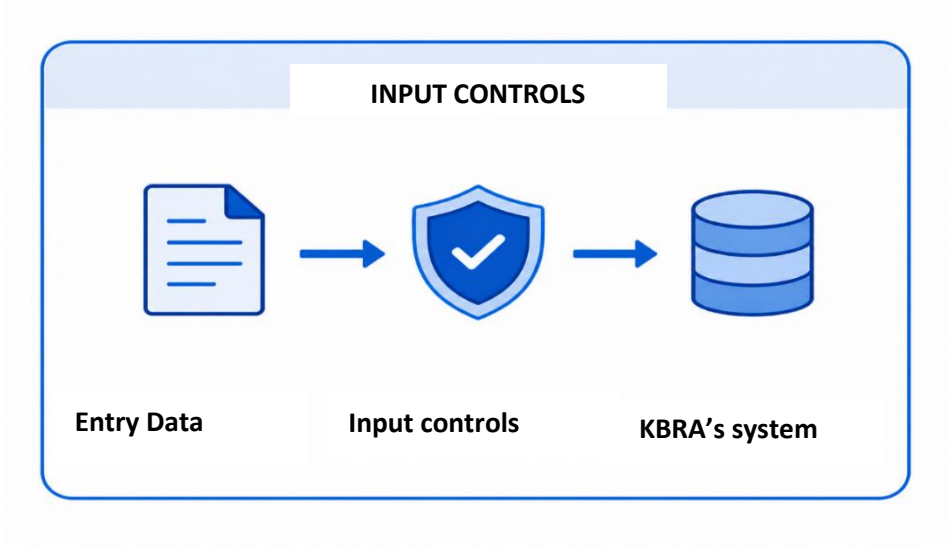


Figure 1 1Input Controls

1. Mandatory fields on the e-Kosova business registration form are not clearly identifiable to citizen

Validation rules in the business registration system should be well-designed, documented, and enforced on input interactions; there should be comprehensive controls such as registration and authorization rules in place in case of potential override of essential input controls; there are appropriate controls and documentation for application inputs. [8]

A citizen on the e-Kosova platform can register Individual Business, General Partnership, Limited Partnership, Limited Liability Company, Joint Stock Company, Foreign Company, Representative Office in Kosovo and Agricultural Cooperative. The e-Kosova platform provides integrated data fields that enable users to complete and submit business registration application forms online.

However, there are no explanations in the form of examples on how the fields should be filled in. Furthermore, the mandatory fields are not distinguished as such for mandatory completion. Although, the citizen cannot proceed to the next step without completing the mandatory fields, the error message is general and does not clarify for the citizen which field the error in completion is occurring.
Furthermore, the e-Kosova platform lacks transparency regarding case tracking, as citizen cannot monitor the real-time status or specific review stages of their business registration applications. Additionally critical modules for modifying existing business details and processing business de-registrations have not yet been developed or integrated into the e-Kosova portal.

The root cause for these deficiencies is that the e-Kosova platform did not have a maintenance and advancement contract at the time when the e-Kosova business service was developed. Furthermore, the developments implemented in e-Kosova were approved in the document for the approval of developments by KBRA. The implementation of these is anticipated under the newly signed 2026 contract for the maintenance and advancement of the e-Kosova platform.

As a result, citizens face operational uncertainty during the online business registration process on e-Kosova. Furthermore, because digital functionalities for business modifications and de-registrations are incomplete, citizens are compelled to rely on traditional alternatives—such as

[8] Information Technology Audit Manual – Application Controls, Access Controls.

physically visiting KBRA service counters. This demonstrates that the strategic objective of achieving full-service digitization via e-Kosova has not yet been fully realized.

2. Deficiencies in the system's development regarding the criteria for a unique business name

Invalid data should be duly rejected by the application; comprehensive controls such as logging and authorization rules should be in place in case of potential bypass of essential input controls; there are appropriate controls and documentation for application inputs.[9]

Although developed in alignment with governing legislation, the Business Registration System fails to meet the statutory requirements of Article 28 of Law No. 06/L-016 on Business Organizations and Article 5 of Administrative Instruction (MTI) No. 02/2020 on the Procedure for Registration of Official Names and Trade Names which stipulates that the trade name should be unique but should also be distinguished by two or more characters.

Audit testing confirmed that the system accepts new business name for registrations that differ from existing entries by just one character be it a single letter, number, or space.

The root cause of this system deficiency is the use of non-complex programming functions during the application development phase, which the IT officer at KBRA justified because, at the time the system was developed, complex functions slowed down the work and functionality of the system. Therefore, they have left it unresolved, not implementing this legal criterion in the system but to be handled manually by the application review officers in the municipalities and at KBRA.

As a result, the system allows businesses to be registered with similar names that do not comply with the legal criteria, which causes confusion in identifying the difference between businesses. Furthermore, the KBRA, more precisely the officers reviewing applications, spend time on manual identification, checking each business name against the KBRA database list, which causes delays in processing business registration cases.

3. Inconsistent Worker Data Resulting in Applications' Returns

Validation rules in the business registration system should be well-designed, documented, and enforced in input interactions; invalid data should be appropriately rejected by the application.[10]

The field for the number of employees is mandatory and should be completed to continue the application process, however, the system also accepts the value 0 as valid. This is in accordance with the legislation in force, since Law No. 06/L-016 on Business Organisations does not determine a minimum number of employees for commercial company forms, such as LLC, Individual Business and other forms. For this reason, the system does not set restrictions on the minimum value of this field.

However, during the audit verifications, we noticed that LLC type businesses that had applied for registration with 0 employees, had their applications returned for correction to the party, by the processing officer, to improve the number of employees, in order to establish at least 1 employee or

[9] Information Technology Audit Manual – Application Controls, Access Controls.
[10] Information Technology Audit Manual – Application Controls, Access Controls.

greater than 1, since it is considered that with the establishment of the business there is at least one individual, while he may also be the owner.

The number of employees in the system is not limited, because the law does not specify such a limitation. This has happened due to the lack of drafting requirements for the development of the system without cooperation from business professionals with the IT department. However, this part is left to IT developers and technicians, which is why the system also allows the use of the number of employees 0.

Lack of drafted system development requirements create confusion when implementing legal requirements in system's development, consequently citizens face significant delays when trying to register businesses.

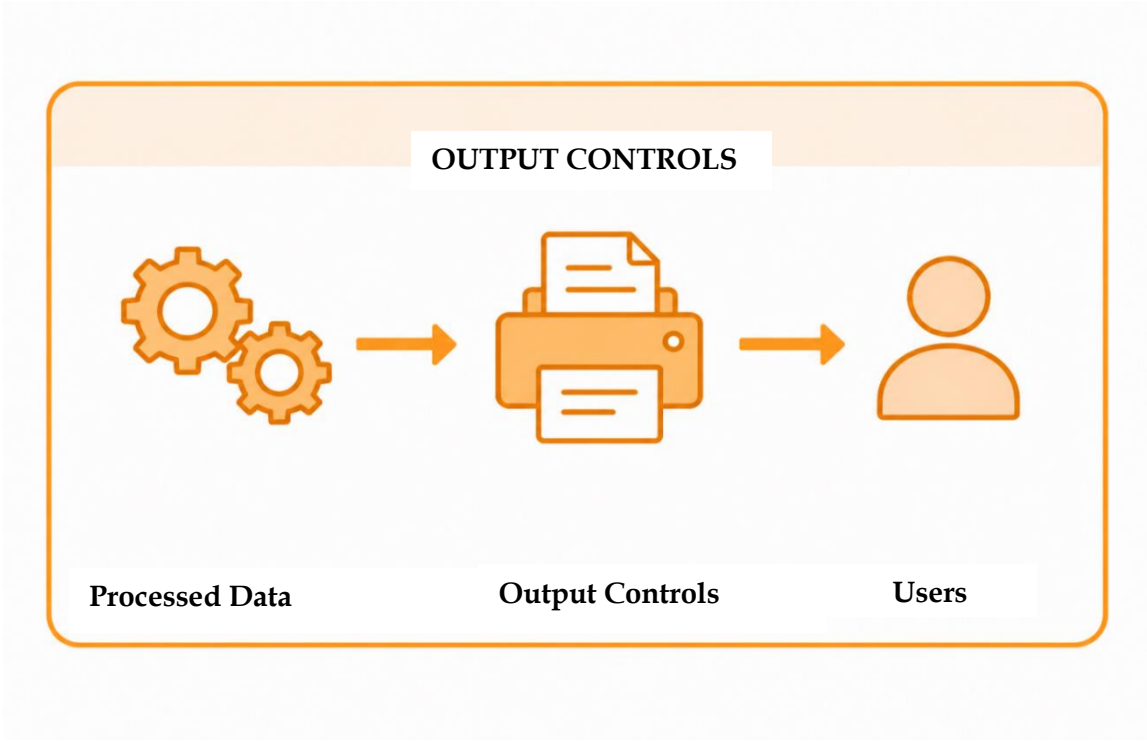


Figure 2 2Output Controls

4. Lack of functionality to limit changes to only the incomplete parts of the subject during the correction process

The KBRA should have procedures in place to ensure that the completeness and accuracy of application results are assessed before the result is used for further processing, that the application result is traceable; that the result is reviewed for reasonableness and accuracy; and that completeness and accuracy checks are effective.[11]

The audit identified that, after the case has been reviewed by the "Approving Officer", in cases where the file is not approved due to deficiencies in the documentation, failure to meet the criteria or inaccuracies in the data submitted, the file is returned to the party for revisions through the system.
However, when returning the file for completion, the system does not limit changes only to the parts where deficiencies have been identified but provides the party with access to the entire file and the

[5] Information Technology Audit Manual – Application Controls, Output Controls

opportunity to change all application data and documents, including those parts that were previously completed correctly and considered complete.
As a result, after the case has been improved by the party, the ''Approving Officer" is obliged to review all documentation and all data in the case again, even for the parts that have not been subject to correction and that were previously verified as correct.

The main cause identified is the lack of a mechanism in the system that allows the officer to be notified of the corrected parts by the party. Therefore, the system does not have a functionality that balances this flexibility with the need to preserve the verified parts of the case and avoid their unnecessary review.

As a result, double work is created for approving officials, the time for reviewing and approving cases is extended, the efficiency of the process is reduced, and the extension of the case review time also creates delays in providing services to the parties.

5. Shortcomings in data reporting functionalities in the Kosovo Business Registry (KBR) system

The KRBA should have procedures in place to ensure that the completeness and accuracy of application results is assessed before the results are used for further processing, including end-user processing. [12]

- The KBRA system does not enable the generation of detailed business reports by municipality. Municipal officials can only generate reports for cases they have processed themselves, while they are unable to generate a complete and detailed report for all cases in their municipality. The portal can only display general statistics, while there is no possibility to generate analytical reports at the municipal level.
- Also, the system statistics do not reflect the real number of passive businesses, as they also include businesses that have not changed their business certificate with the Unique Identification Number (UIN). As a result, the number of passive businesses presented in the system of over 93 thousand may differ from the real situation because some of them may be exercising economic activity.
- In addition to the reporting part, the audit also identified shortcomings in access to cases in municipalities. The system is designed to provide limited access to cases according to the municipality where the application was made, but we have identified cases where the system has allowed access to cases or data from other municipalities. During the audit, we noted a case where the party had applied online for information, but when opening the request, the system had displayed the data of another business from a completely different municipality, exposing information that did not belong to the applicant, which information the official had reported to the KBRA. Also, a case was identified where the application was incorrectly distributed for processing to the wrong municipality. Specifically, a business had made the application in another municipality, but the application was displayed for processing in the Municipality of Ferizaj. This case was reported by the municipality to the KBRA.

According to KBRA officials, the reason for the lack of functionality for generating detailed reports at the municipal level is justified by the fact that most municipalities do not have division heads and for this reason, it was not considered necessary to create this functionality. Although the agreement signed by the municipalities with KBRA stipulated that the organization of municipalities for business registration would be done by division heads, this has not been implemented in practice

[5] Information Technology Audit Manual – Application Controls, Output Controls

by the municipalities, due to a lack of committed staff. However, KBRA generates reports for each municipality from the central level.

While regarding the failure to update inactive businesses and the Unique Identification Number (UIN), KBRA has emphasized that the process has not been fully implemented because the Law on Business Organisations does not create an obligation and to enable KBRA to force businesses to update data, there are also no bylaws that regulate this issue. While the cause of the cases of incorrect distribution of applications and the display of data of other businesses indicate deficiencies in the application controls and in the logic of the system's operation, for which KBRA had not identified the problem.

As a result of these shortcomings, the possibility of effective monitoring and reporting of cases and businesses at the municipal level is limited, affecting the efficiency of processes and the quality of decision-making. It also increases the risk of incorrect processing and exposure of cases, undermining the credibility of the KBRA system.

6. Failure to fully implement the process of registering and deregistering businesses electronically

The KBRA should ensure that the completeness and accuracy of application results is assessed before the result is used for further processing; the result is reviewed for reasonableness and accuracy; and that completeness and accuracy checks are effective.[13]

Although the application process for business registration can be initiated and completed online through the KBRA system, the process is not fully digitalized. After registration is complete, the business certificate is still issued in physical form, where the party should physically appear to receive the document. Also, regarding the payment of the service in the KBR system, the party should download the payment slip and then upload the proof of payment, as the system is not integrated with electronic payments.
The same approach applies to other services, such as:

- requests for changes to business data;
- requests for issuing a duplicate certificate;
- requests for information from KBRA.

Although the request and application are initiated through the electronic system, receipt of final documents continues to be done only in physical form.
While through the e-Kosova platform, in addition to being able to apply online for business registration, the citizen can also:

- download the certificate electronically;
- document is signed electronically through the platform mechanisms;
- payments are made through the e-Kosova electronic payment service in real time.

However, even on the e-Kosova platform, services for changing and deregistering businesses have not yet been made possible.

Also, another limitation in the full digitalization of processes is related to the tax certificate from the Tax Administration of Kosovo (TAK). For business deregistration/deletion procedures, the party should bring the physical tax certificate, stamped by TAK, in physical form.

[5] Information Technology Audit Manual – Application Controls, Output Controls

KBRA has direct connections with TAK systems. However, TAK currently does not offer this option of providing information on tax obligations in electronic form, therefore this process is still carried out through physical documents.

The root causes for these shortcomings are legal restrictions related to the elimination of physical documents. Therefore, in the KBRA system, the process of providing a certificate and preserving the file continues in physical manner. While in e-Kosova, it has been enabled for the process to be carried out entirely online, with the exception of services for changing and deregistration of businesses that have not yet been developed and are in the process of development with the new contract for the maintenance and advancement of the e-Kosova platform. Also, in the KBR system, the possibility of electronic signature has not been implemented, even in the event of legal changes. However, the e-Kosova platform already offers the possibility of using electronic signatures. While the absence of full integration between the KBR and the TAK platforms, for the automatic exchange of information necessary for deregistration procedures, has influenced the lack of full digitalization for which process. KBRA and TAK discussed an integration allowing the RBK system to send electronic verification requests. If TAK returns data showing zero tax liabilities, the system would be automatically processing the business deregistration.

As a result of these shortcomings, the processes of business registration, amendment and deregistration are not fully carried out electronically, creating a dependence on physical documentation and manual procedures. This affects the extension of processing time, increasing the administrative burden, limiting the benefits of digitalization. Also, the lack of integration between systems limits the automation and efficiency of services for businesses.

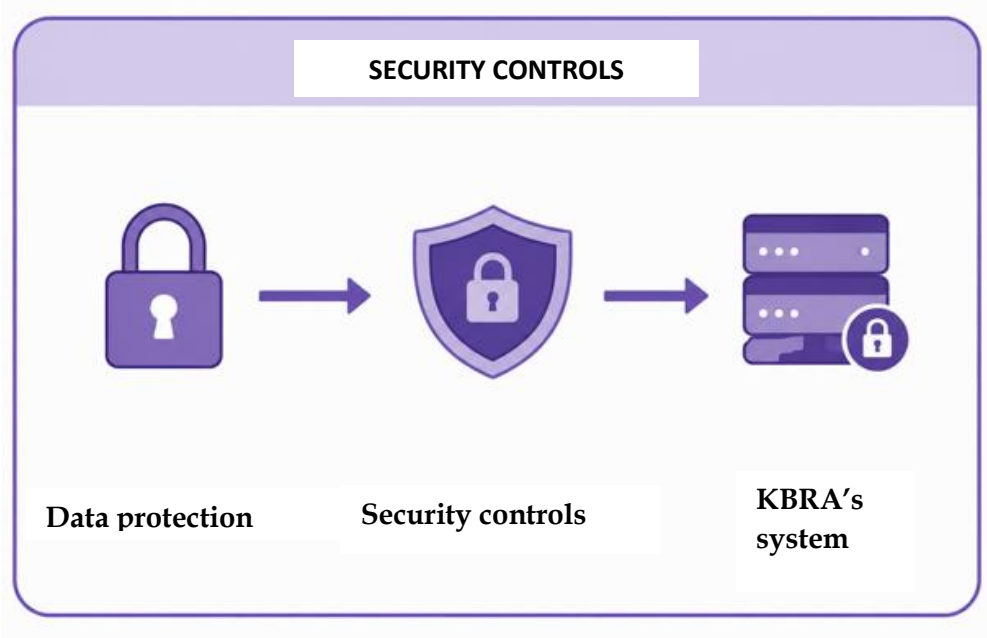


Figure 3. Security Controls

7. Lack of password complexity in the KBRA's system

Application data should be protected in accordance with security standards and the IT audit manual. Effective logical and physical access controls, as defined in the Information Security domain, should be implemented to ensure authentication, authorization, and monitoring of access.[14]

During the audit, it was identified that the Kosovo Business Registry system did not implement sufficient requirements for the complexity of users' passwords. At the time of the audit, system users were not required to use passwords that met minimum security criteria nor to change them periodically.

The KBRA has stated that it is in the process of implementing a new mechanism to increase the complexity of passwords, but during the audit phase it was not implemented. This implementation began after the issue was identified by the audit, as an interim measure until the drafting, approval and implementation of an official policy for password management.

According to the KBRA, weak password standards stem directly from a lack of formal information security policies, including the absence of an approved password management framework. This policy deficit is ultimately driven by limited organizational capacity and a weak cybersecurity governance structure.

As a result, the lack of sufficient requirements for password complexity and management increases the risk of compromise of user credentials. As a result, unauthorized access to the KBR system may be possible. Furthermore, the lack of a formalized password management policy creates the risk that security controls are not implemented consistently and uniformly for all users of the system.

8. Shortcomings in change management and division of responsibilities in the KBR's system

Application data should be protected in accordance with security standards and the IT audit manual. Effective logical and physical access controls, as defined in the Information Security domain, should be implemented to segregate roles, tasks, and responsibilities.

The KBRA does not have a formalized policy and procedure for change management in its information systems.
However, in practice there is an internal change management process. Any request for change or new development is initiated by the KBRA's management and submitted to the responsible Information Technology officer.
After receiving the request, the IT officer:

- performs technical and functional analysis;
- assesses the impact of change;
- plans and coordinates development;
- performs testing;
- oversees the implementation of changes in the system;
- monitors the process until completion.

After development, changes are first implemented in the test environment, where new functionalities and impacts on existing functionalities are verified. Backups are performed before changes that may affect data integrity or availability.
Only after testing is completed and confirmation that the change works according to requirements is it implemented in the real (production) environment.

[6] Information Technology Audit Manual – Application Controls, Application Security Controls

However, there is currently no formal working group for change approval and management. Due to the limited number of IT staff, the entire process relies primarily on a single IT officer, who performs the roles of analysis, development testing, technical approval, and implementation.

The main causes are the lack of a documented procedure for change management; the limited number of KBRA and IT staff, with one officer covering most roles in the change cycle; the lack of a formalized structure for the division of duties and approval of changes.

As a result of the lack of a formalized procedure for change management and the concentration of most roles in a single IT officer, internal controls over the change process in the KBRA's system are weakened. This creates a risk of lack of proper segregation of duties between initiating the request, analysis, development, testing, approval and implementation of changes; increased dependence on a single person for the operation, maintenance and development of the system; implementation of changes without going through full controls and independent reviews before moving to the real environment. As a result, the risk that changes made to the system negatively affect the integrity and availability of KBR data and functionalities increases.

9. Lack of formalized procedures for Backup and Disaster Recovery at the KBRA's level

Application data should be protected in accordance with security standards and the IT audit manual. The application should have a documented disaster recovery plan, including secure backup and recovery mechanisms, according to the domain on the BCP/DRP. Security and recovery plans should be tested regularly to ensure business continuity and protection of information. [15]

KBRA does not have formalized and documented procedures for managing Backup and Disaster Recovery, therefore there is a lack of policies and plans for business continuity.
The hardware infrastructure of the KBRA is hosted at the Agency of Information Society (AIS), which is responsible for security, availability, and the implementation of operational procedures for backup and continuity of services.
The backup process is carried out in accordance with Article 8 of Regulation (MPA) No. 01/2018 on Electronic Databases. Therefore, in practice, the following are currently carried out:

- Differential backup and daily log backup;
- Full back up once a week;
- Machine backup every seven days.

Backup copies are stored in three copies and in different locations:
Meanwhile, regarding Disaster Recovery, KBRA relies on AIS's infrastructure. AIS has not yet created a solution for implementing "Disaster Recovery" but has taken steps and is in the process of developing a solution.

The main reason is the lack of human and organizational capacity to draft internal procedures for Backup and Disaster Recovery.

The lack of formalized procedures for backup and disaster recovery management limits clarity on responsibilities and how to act in the event of incidents. As a result: the risk of data and service recovery not being carried out in a coordinated manner and within the established deadlines increases; the readiness of the KBRA to respond and continue operations in the event of disruptions or disasters is constrained.

[6] Information Technology Audit Manual – Application Controls, Application Security Controls

4 Conclusions

Based on the assessment of application controls and application security for the Kosovo Business Registration System (KBR), it was concluded that the system represents an important platform for the digitalization and support of business registration, management and administration processes in Kosovo. The system has contributed to the standardization of processes, centralization of information and facilitation of interaction between the KBRA, municipalities and citizens, providing a good basis for the further development of electronic services.

However, based on the assessment of application controls and application security, it has been found that the implemented controls do not fully provide the necessary level of automation, validation, reporting and information security.

Input controls

The entry controls in the business registration process through the RBK system and the e-Kosova platform do not fully ensure the necessary validation of input data and adequate guidance of users during the application. Although the system contains some basic controls, shortcomings have been identified in the identification of mandatory fields, data validation and automatic implementation of legal requirements. The lack of clear marking of mandatory fields, the lack of instructions for their completion and general error messages make the process difficult for citizens and increase the possibility of incorrect completion of applications. Also, the lack of full functionalities for changing and deregistering businesses in e-Kosova indicates that the process of digitalization of services has not been fully implemented. Also, the automatic system controls do not ensure the full implementation of legal requirements, such as the criterion for the distinctiveness of the business name. Allowing the registration of business names with minimal differences from existing names increases the need for manual verifications by officials and creates a risk of confusion in identifying businesses.

Additionally, the lack of specification of functional requirements by subject matter experts prior to system development has resulted in some business rules and legal interpretations not being integrated into the application's automated controls. This has resulted in cases where applications are allowed to be submitted with data that then requires manual correction by officials.

Overall, input controls in the KBR system require improvement through strengthening automatic validations, integrating legal and business requirements into the system's functionalities, and improving the user interface.

Output controls

The Output controls of the Kosovo Business Registry (KBR) system do not provide full support for effective reporting, process monitoring and service automation. Although the system enables basic management of applications and cases, shortcomings have been identified in reporting functionalities, data control and process digitalization.

The lack of detailed reports at the municipal level and inaccuracies in the system's statistics affect information monitoring and decision-making.

The processes of business registration, amendment and deregistration are not fully electronic, as they continue to require documents and physical actions due to the lack of some necessary

functionalities and integrations. Also, the lack of mechanisms for limiting changes during the correction of cases increases the workload of officials and extends the time for reviewing requests, causing delays in business registration.

Overall, the RBK system requires improved output controls to ensure higher accuracy, more effective reporting, more automated processes, and more efficient case management, reducing reliance on manual procedures and increasing the quality of services to businesses.

Application security controls

Application security controls in the Kosovo Business Registry (KBR) system are partially implemented but require improvement to ensure a higher level of system, data and service continuity protection.

Although KBRA has undertaken several technical and operational measures, such as practical processes for change management and backups through AIS-managed infrastructure, the lack of formalized policies, procedures, and controls limits the effectiveness of application security governance.

Deficiencies in user credential management, namely the lack of mandatory requirements for password complexity and management, present weaknesses in input controls and increase the risk of user accounts being compromised. Also, the lack of a formalized change management process and the concentration of key change cycle roles in a single IT officer weakens the segregation of duties and independent control of system changes.

Also, although technical backup processes are implemented in practice, the lack of documented Disaster Recovery procedures limits the KBRA's readiness for coordinated response and restoration of services in the event of incidents or disruptions.

Overall, application security controls in KBRA require strengthening through the design and implementation of formalized policies and procedures, improved access management, segregation of responsibilities in critical processes, and clear definition of measures for service continuity.

5 Recommendations

Recommendations for the Kosovo Business Registration Agency, an agency of the Ministry of Industry, Entrepreneurship, Trade and Innovation

1. **Improving the functionalities of the business registration service in e-Kosova.** KBRA, in cooperation with AIS, should improve the functionalities of the business registration service in e-Kosova, by providing instructions and examples for completing the application fields, by making mandatory fields distinct, by displaying clear error messages that identify the relevant field, and by enabling tracking of the status of the case during the application process.

   1.1. Also, modules for changing and deregistering businesses in e-Kosova should be developed, with the aim of fully developing the process through e-Kosova platform.

2. **Improving business name verification in accordance with legislation.** KBRA should automatically check business names in the business registration system, so that the check of name distinctiveness is implemented in accordance with the legislation on the procedure for registration of official names and trade names, so that verifications are carried out by the system and manual checking of business names by review officers in municipalities and KBRA is eliminated.

3. **Improving the process of drafting requirements for system's development.** KBRA should assign persons responsible for drafting requirements for system developments, including professionals in the fields of legislation for the business part of the requirements, so that legal provisions are interpreted correctly and developed correctly into system functionalities.

4. **Reporting functionalities.** KBRA should develop and activate functionalities that enable the generation of complete and detailed reports at the municipal level, enabling authorized municipal officials to access reports for all cases of the respective municipality, not only for cases that they have processed individually.

   4.1. KBRA should review and improve the reporting and statistics mechanisms of the system, so that the data presented reflect the real situation of active and passive businesses, ensuring the updating of the Unique Identification Number (UIN) through institutional cooperation with the Market Inspectorate and the Tax Administration of Kosovo.
   4.2. KBRA should review the application controls and the rules for distributing cases, ensuring that the case is handled and processed only by the respective municipality.

5. **Complete process digitalization.** KBRA should cooperate with responsible institutions for the review and harmonization of legal and procedural requirements, especially regarding the provisions of Law No. 06/L-016, to identify opportunities for the implementation of electronic processes.

   5.1. KBRA should review and improve the functionalities of the KBR system, and develop the possibility of electronic signature, enabling the completion of services in a fully electronic

manner, including the issuance and download of electronic certificates, changes in business data, duplicate certificates and requests for information.
5.2. KBRA should develop electronic integrations with other relevant institutions, with the Tax Administration of Kosovo in first stance, for the automatic exchange of information necessary for business deregistration/deletion procedures, so that the verification of tax obligations is carried out through the interaction of electronic systems and not through physical documents.

6. **Case Correction Process.** KBRA should review and improve the functionality of the KBR system for managing cases returned for correction, ensuring a more controlled change process and maintaining the necessary flexibility for the parties (Business and Approving Officer).

7. **Passwords complexity.** KBRA should ensure the development, approval and implementation of a policy and procedures for password management, as part of the information security framework, and complete the implementation of a mechanism in the RBK system that enforces minimum requirements for password complexity and their periodic change.

8. **Change management and segregation of responsibilities in the KBR system.** KBRA should ensure the development, approval and implementation of a formalized policy and procedure for managing changes in information systems, which clearly defines the process steps, criteria for evaluating, testing, approving, documenting and implementing changes.
8.1. It should also create an appropriate structure for approving and overseeing changes, ensuring the division of tasks between roles, to reduce dependence on a single person and strengthen internal controls over the change management cycle.

9. **Backup and Disaster Recovery.** The KBRA should ensure the development, approval and implementation of formalized procedures for managing backup and disaster recovery, as part of the business continuity plan, clearly defining responsibilities, data recovery processes, recovery deadlines and the method of coordination with the ASH.
9.1. Also, the KBRA in cooperation with the AIS should ensure the development and periodic testing of a disaster recovery solution, to guarantee the continuity of critical services and reduce the risk of possible disruptions to the KBR's system.

Annex I. Audit Design

Risk Areas and Audit Problem Indicators

The importance of the business registration system lies in the fact that it enables the provision of electronic services to citizens and businesses, including account creation, business registration application, as well as submission of change requests and data management. Through this system, businesses can carry out procedures in a digital manner, which contributes to increasing institutional efficiency and reducing manual procedures. Its materiality is high not only due to its operational role, but also for the impact it has on transparency, data integrity and the quality of services for many users.

In addition to valuable data for businesses and their easier management and monitoring through this registry, this system reduces costs and increases data security and reliability for other platforms that need business data.

The importance of the Ministry for businesses was also emphasized in the European Commission's Annual Report on Kosovo, where it was emphasized that:

"Kosovo remains moderately prepared and has made limited progress in continuing to implement its 2030 Strategy for Industrial Development and Business Support."

The European Commission's recommendations from last year have been implemented only to a limited extent and remain largely valid. In the coming period, Kosovo should in particular:

- To advance the implementation of the Strategy for Industrial Development and Business Support 2030, as well as the sustainable economic growth pillar of the National Development Strategy 2021–2030;
- Urgently improve the capacities of the Ministry of Industry, Entrepreneurship and Trade;
- Complete the establishment of two separate agencies, one for investment promotion and one for support to small and medium-sized enterprises (SMEs), and ensure that both have sufficient financial, human and technical resources for their effective functioning.

Despite the strategic framework of this report, challenges continue to be present in certain cases in practice, where, according to some sources reported in official media, in KBRA it is related to an investigation, in one case with the change of ownership data of a business after the death of the owner. During our discussions in KBRA during the planning phase, it was clarified to us that the investigations for the officials of the institution have ceased, and the circumstances have been clarified. Therefore, as a problem it orients us to security controls regarding the access and possibilities of change in the system.

According to the KBRA's report "Report on basic performance indicators for the registration of Business Organisations in Kosovo", the main problem remains with delays in registration. The average time for the registration of all Business Organisations in Q2 2023 was 5.99 days, while in the

same period of 2022 it was 3.70 days. This represents a 62% increase in the duration of registration, which means that businesses are registering more slowly than before. Therefore, as a problem, it orients us to the incoming checks of the application.

Also, the challenge of implementing the system was presented by the legislation that was not updated, or in some cases not well harmonized. Which orients us to the output controls of the application and the part that is treated by the domain "IT Governance" will be treated as a cause in the part of the application controls, the legislation as part of the entry and output controls, while the structure and approach in the part of the security controls of the application.

All these challenges show that the system needs improvements in terms of digitalization and efficiency, so that services for businesses are faster, more accurate and easier to use.

Review of problem indicators identified from various sources, meetings held with persons responsible for identifying issues for the business registration system, as well as our assessments based on the Active IT Audit Manual[16] The identification of the most risky areas from the received documentation points us to the main problem: the business registration system has deficiencies in application control, which includes input, output and application security controls.

System Description

Ministry of Industry, Entrepreneurship, Trade and Innovation

The Ministry of Industry, Entrepreneurship, Trade and Innovation administers the business registration system since 13 September 2001. Based on the provisions of Regulation 2001/6 and Administrative Direction 2002/22, the Registration Office was established for Kosovo Business Enterprises and Trade Names. The registration office was officially opened on 11 November 2002 as an Independent Executive Agency within the Ministry of Industry, Entrepreneurship, Trade and Innovation. This office has been accepting the first registrations since 13 March 2003, when the acceptance of temporary documentation ceased.

The Business Registration Agency registers all Business Organisations and Foreign Business Organisation in accordance with Law No. 02/L-123 on Business Organisations and Law No. 06/L-016 on amendments and supplements to the Law on Commercial Companies, provides information and services with the Statistical Office, Tax Administration, Customs, Police Service and other agencies.

Below, through a diagram, is presented the organizational structure of the Kosovo Business Registration Agency (KBRA) that will be included in the audit for the administration, management and use of the business registration system.

[16] Active Audit Manual - is a platform developed by ITWG/EUROSAI and WGITA/INTOSAI, used to identify the riskiest areas, define questions, criteria and work methodology during the IT audit process.



Figure 4. KBRA organizational structure for the business registration system.

The following figure shows the entire process of the system's operation, starting from business registration to application review and approval.

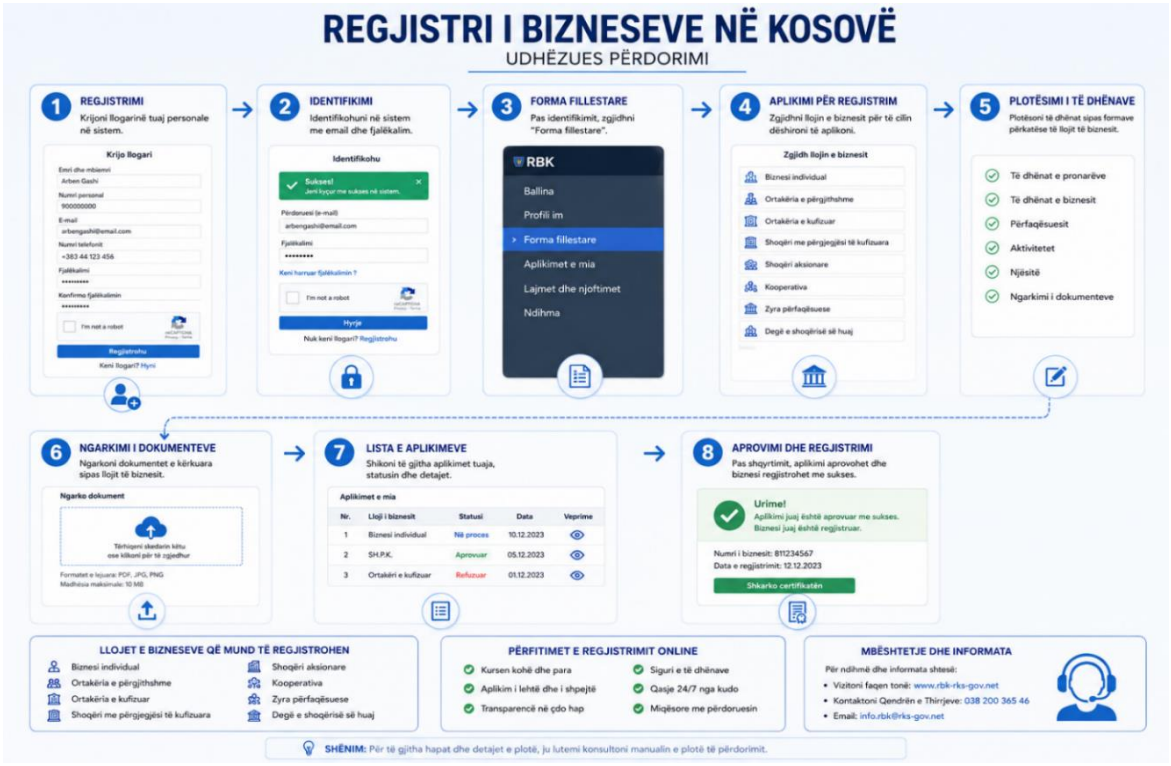


Figure 5. Cycle from business registration to application review and approval.

Kosovo Business Registration Agency (KBRA)

The Business Registration Agency operates within the Ministry of Industry, Entrepreneurship, Trade and Innovation, which is the sole institution responsible for registering businesses in Kosovo.

The Business Registration Agency is a development-oriented institution that provides efficiency, with high quality for all economic operators operating in Kosovo.

Through a network of 36 municipal registration centers, linked to the central office of the KBRA, a unified and coordinated service is provided throughout the territory of Kosovo. This "one-stop-shop" system is designed to provide an easy and efficient experience for businesses, reducing bureaucracy and increasing transparency.

The mission of KBRA is to create a favourable environment for business development in Kosovo, by providing reliable and efficient services. It aims to harmonize procedures with international best practices and European Union directives, making business registration as easy and standardized as possible.

Municipal Centers

The KBRA provides a "one-stop-shop" solution for business registration throughout Kosovo, being a central database of unified data centralized in 36 municipal centers.

Kosovo Business Registration System

The Kosovo Business Registry System is an electronic platform that enables users to register in the system and apply online for business registration, also providing access through their access to the e-Kosova platform, as well as submit requests for changes and other administrative services. After confirming the account, users can manage their business data electronically.

The business registration system includes a wide range of functions that cover the entire life cycle of a business, from initial creation to changes and deregistration, of which only the registration part has been implemented online on the e-Kosova platform so far.

The registration process is carried out through several steps. After identifying on the platform, the user selects the type of business and continues with filling out the relevant forms. The system requires the completion of the owner's personal data, business data, economic activities, business address and authorized representatives. The user should also upload the necessary documents for registration, such as identification documents and forms required by the system. The system allows users to register different types of businesses such as Individual Businesses, Limited Liability Companies (LLCs), Joint Stock Companies, General Partnerships, Limited Partnerships, Foreign Business Organisation and Agricultural Cooperatives.

In the business registration system, in addition to business registration, the system also offers the possibility of changing business data, changing address, activities, capital, owners, representatives, and deregistering the business.

Audit Scope and Audit Questions

The scope of this audit encompasses the Kosovo Business Registration Agency (KBRA), with municipal business registration centers (two municipal centers were selected as test samples during

this audit), which is responsible for the development and maintenance of the Business Registration System and the relevant division for the administration of information technology systems.

The focus of the audit is the application controls for the Business Registration System in Kosovo. The audit will cover the period from 2025 to 2026, including the initial contract with the terms of reference for the development of the system in 2019.

To respond to the audit objective, we focused on the application controls area, selecting the following audit areas:

1. Application Controls

1.1. Input controls

1.3. Output data controls

1.4. Application security controls

Audit questions

To answer the audit objective, we have posed the following questions:

1. *Does the Business Registration System include adequate application controls to validate the input data.*
2. *Does the system verify that only authorized staff can add or manage user login data in the database?*
3. *Does the system contain processing controls to guarantee that data processing results are entirely complete and accurate?*
4. *Is the safeguard of the data output organized in the appropriate manner?*
5. *Are the tracking mechanisms in the Business Registration System sufficient?*
6. *Are adequate security controls active within the business registration system to protect information against misuse*?

Audit Criteria[17]

The criteria driving in this audit are derived from the Active IT Audit Manual [18], as well as the law and sub-legal acts in force for the Business Registry System in Kosovo.

To assess the integrated information system for the Business Registry System in Kosovo, there are application control mechanisms that enable completeness, accuracy and secure access to the business registry system. The following criteria have been established:

- Validity rules in the business registration system should be well-designed, documented and implemented in the input interaction; different methods for data entry should be documented; invalid data should be rejected appropriately by the application; validation criteria are updated in an appropriate and authorized manner; comprehensive controls such as registration and

[17]For more information, consult ISSAI 300, Criteria, p.7.

[18] The Information Technology Audit Manual is a product of the EUROSAI Working Groups on Information Technology (WGITA) and the INTOSAI Development Initiative (IDI) for the definition of rules and standards for Information Technology Auditing. - hereinafter the Information Technology Audit Manual.

authorization rules should exist in case of the possibility of overcoming essential input controls; there are appropriate controls and documentation for application inputs.[19]

- The KBRA should have procedures in place to ensure that the completeness and accuracy of application results are assessed before the result is used for further processing, including end-user processing; that the application result is traceable; that the result is reviewed for reasonableness and accuracy; that completeness and accuracy checks are effective.[20]

- Application data should be protected in accordance with security standards and the IT audit manual. Effective logical and physical access controls, as defined in the Information Security domain, should be implemented to ensure authentication, authorization, and monitoring of access. Audit trails should exist that record changes, overrides, and authorization logs for critical transactions; audit trails are adequately maintained and protected; and each transaction is assigned a unique and sequential number or identifier. The application should also have a documented disaster recovery plan, including secure backup and recovery mechanisms, as per the BCP/DRP domain. Security and recovery plans should be tested regularly to ensure business continuity and information protection.[21]

Audit Methodology

To answer the audit questions and to support the audit conclusions, we will apply the following methodology:

- Review and analysis of contractual documents. Initial contract for the development of the web platform of the business registration system. KBRA requirements (business side for the development of functions). IT requirements related to the development and advancement of the system. Reports on the development of requirements.
- Review of business requirements and rules for KBRA. Analysis of input data types. Legal and compliance requirements with external regulations. Structure of data interconnections with other systems. System flow diagrams. User manuals. Verification rules.

- Analysis of system interconnections for receiving input data.
  Verifying whether validation controls for data entry are being implemented, by observing application users during their actual actions; analysing data records stored in the database using auditing tools.
  Assess whether the validation criteria and parameters on the input data match the business rules and enforce rejection of input types that do not match. Database operators (such as *, =, or select) should be prohibited as valid input, as they can be used to interrupt or retrieve information from the database. Managers, are interviewed whether the validation criteria and parameters on input data are periodically reviewed, confirmed and updated in an authorized and appropriate manner.

[19] Information Technology Audit Manual – Application Controls, Access Controls.
[5] Information Technology Audit Manual – Application Controls, Output Controls
[6] Information Technology Audit Manual – Application Controls, Application Security Controls

- Review system flow diagrams and system code and interview application developers or administrators to obtain information on interfaces and controls on them.

- Review of Lists of electronic outputs/reports. Sample of electronic output.

  Analyse lists of all electronic outputs that are reused in end-user applications in the KBRA registration offices. Verify that electronic output is tested for completeness and accuracy before being reused and reprocessed. Analyse the balance and consistency of output as determined by documented methods. Process completeness and accuracy tests to verify that they are effective. Review whether each output contains: name or number of the processing program; title or description; processing period covered; name and location of the user; date and time of preparation; security classification.
- Analysis of system interconnections for displaying results for output data.
- Review of the technical documentation of the Business Registry System with implementation details.
- Review the available documentation of the software/hardware solution and interview the KBRA IT team to assess their understanding of the security mechanisms implemented in the application.

Relevant Statutory Documents

The Assembly and Government of Kosovo have adopted laws and administrative instructions that define the responsibilities and the process of functioning of the Kosovo Business Registration Agency (KBRA) in the Institutions of the Republic of Kosovo.

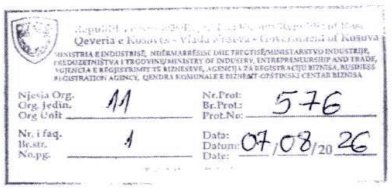
2.1 Laws and Administrative Instructions

Law No. 06 l - 016 on Business Organisations
This law regulates the establishment, registration, organization, functioning and dissolution of Business Organisations in Kosovo, as well as the rights and obligations of their owners, shareholders and management bodies.
Administrative Instruction GRK No.-012019 Setting Forth the Requirements, Conditions and Procedures for Creating a Unique Identification Number
This administrative instruction sets out the requirements, conditions and procedures for the creation and use of a Unique Identification Number (UIN) for businesses, which serves as a single identifier for registration, taxes and other institutions, and is issued by KBRA during business registration.
Administrative Instruction No.-012019 for the Determination of Requirements and Conditions
This instruction sets out the manner of creating, using and administering the Unique Identification Number (UIN) for businesses, which serves as a single identifier for registration, taxes and other institutions and is issued by KBRA during business registration.
Administrative Instruction No. 12-2022, dt. 10.10.2022
This instruction sets out the taxes for the services provided by KBRA to businesses, basing them solely on the type of service (not on capital or turnover), and regulates the method of payment and the relevant procedures.
Administrative Instruction on KBRA Taxes
This instruction sets out the fees for KBRA services for various businesses, specifying the types of services and the respective fees, and regulates the method of payment and their administration.

Annex II. Confirmation letter







Republika e Kosovës
Republika Kosova - Republic of Kosovo
Qeveria - Vlada – Government

Ministria e Industrisë, Ndërmarrësisë, Tregtisë dhe Inovacionit/ Ministarstvo Industrije, Preduzetništva, Trgovine i Inovacija / Ministry of Industry, Entrepreneurship, Trade and Innovation

Agjencia e Regjistrimit të Bizneseve në Kosovë/ Kosovska Agencija za Registracije Biznisa/ Kosova Business Registration Agency

LETËR E KONFIRMIMIT

Për pajtueshmërinë me të gjeturat e Auditorit të Përgjithshëm për raportin e auditimit të teknologjisë së informacionit **Sistemi i Regjistrimit të Bizneseve të Kosovës,** dhe për zbatimin e rekomandimeve.

Për: Zyrën Kombëtare të Auditimit

Vendi dhe data: Prishtine, 07/08/2026

I nderuar,

Përmes kësaj shkrese, konfirmoj se:

- kam pranuar draft raportin e Zyrës Kombëtare të Auditimit **Sistemi i Regjistrimit të Bizneseve të Kosovës** (në tekstin e mëtejmë "Raporti");
- pajtohem me të gjeturat dhe rekomandimet dhe nuk kam ndonjë koment për përmbajtjen e Raportit; si dhe
- brenda 30 ditëve nga pranimi i Raportit final, do t'ju dorëzoj një plan të veprimit për implementimin e rekomandimeve, i cili do të përfshijë afatet kohore dhe stafin përgjegjës për implementimin e tyre.

Drejtori Ekzekut

Fahrije Tërnava





National Audit Office of Kosovo
Arbëria District,
St. Ahmet Krasniqi, 210
10000 Prishtina
Republic of Kosovo