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API Integration of AIS with External Business and Fiscal Platforms in Albania

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Abstract: The rapid digitalization of business processes has increased the need for Accounting Information Systems (AIS) to communicate effectively with external business, fiscal, banking, and analytical platforms. In Albania, this need has become particularly important following the implementation of the fiscalization law, which requires businesses to exchange invoice and transaction data with the national SelfCare platform. This paper examines the role of API integration in connecting AIS with external business and fiscal platforms in the Albanian context. The study focuses on several major forms of integration, including the connection of sales and POS systems with full accounting packages, the integration of AIS with the SelfCare fiscalization platform, banking system integration for the automatic transfer of financial transactions, e-commerce integration between company websites and accounting systems, and the use of Business Intelligence tools for real-time reporting and dashboard creation. The paper argues that API-based integration improves data accuracy, reduces manual data entry, supports real-time information exchange, strengthens compliance with fiscal requirements, and increases the flexibility of accounting and managerial reporting. In most cases, these integrations operate as two-way communication channels, allowing connected systems to send and receive data through API interfaces. By analyzing the main integration practices currently emerging in Albania, this paper contributes to a better understanding of how AIS are evolving from isolated accounting applications into interconnected digital platforms that support operational efficiency, fiscal compliance, and data-driven decision-making.

Keywords: API integration; AIS; cloud AIS; POS; fiscal Platforms

JEL Classification: M41, M15, L86

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1. Introduction

The digital transformation of business processes has significantly changed the role of Accounting Information Systems. In the past, AIS were mainly used as internal tools for recording, processing, storing, and reporting accounting transactions. Today, however, their function has expanded beyond traditional bookkeeping. Modern AIS are increasingly expected to operate as central digital platforms that communicate with other business, fiscal, banking, and analytical systems. This development reflects the growing need for faster data exchange, higher accuracy, reduced manual work, and more efficient reporting.

In this environment, API integration has become an important mechanism for connecting Accounting Information Systems with external platforms. APIs allow different software systems to communicate with each other by following common technical rules, protocols, and data exchange standards. Through API integration, information generated in one system can be transferred automatically to another system without the need for repeated manual registration. This is particularly important for accounting and finance departments, where manual data entry can lead to errors, duplicated work, delays in reporting, and inconsistencies between operational and financial data.

The need for API-based integration is especially relevant in the Albanian business environment. Companies in Albania vary from micro businesses to large enterprises, and they use different software solutions according to their size, sector, transaction volume, and operational needs. The local AIS market is mainly represented by accounting software providers such as Alpha Web, Financa 5, Bilanc, and other domestic packages, while international ERP systems such as Microsoft Dynamics, SAP, and Odoo are also present in the market. However, due to the higher cost of purchase, customization, and implementation, global ERP systems generally have a smaller market share compared with local AIS solutions.

This diversity of software usage creates a practical need for integration. Many Albanian companies do not manage all their operations within a single system. For example, restaurants, bars, hotels, supermarkets, and retail companies often use POS or sales software for daily sales operations, while the finance department uses a separate AIS for accounting records and reporting. In such cases, API integration becomes necessary to transfer sales data automatically from the POS system to the accounting system. Without this connection, businesses must rely on manual data

transfer, which increases the risk of errors and reduces the efficiency of accounting processes.

Another important driver of AIS integration in Albania is the fiscalization process. The implementation of Law No. 87/2019 “On the Invoice and the Circulation Monitoring System” created new requirements for businesses to issue and report fiscalized invoices through the national SelfCare platform. As a result, AIS providers and business entities must ensure that invoice data can be transmitted electronically and securely to the fiscalization system. This reform has increased the importance of API integration because accounting software must communicate with the fiscal infrastructure in order to support invoice validation, fiscal reporting, and compliance with legal requirements.

In addition to POS and fiscalization integration, Albanian businesses are increasingly interested in integrating AIS with banking systems, e-commerce websites, and Business Intelligence platforms. Banking integration supports the automatic transfer of bank transactions into the AIS and can improve reconciliation and cash-flow monitoring. E-commerce integration allows online sales, customer data, product information, and inventory changes to be exchanged automatically between company websites and accounting systems. Business Intelligence integration allows accounting and operational data to be used for customized reports, dashboards, and managerial analysis. These examples show that API integration does not only support accounting registration, but also improves reporting quality, operational control, and decision-making.

Despite its growing practical importance, API integration of AIS with external business and fiscal platforms remains an under-researched topic in the Albanian context. Existing studies usually address Accounting Information Systems, ERP systems, digital accounting, or fiscalization in general, but limited attention has been given to how AIS platforms are connected in practice with POS systems, SelfCare, banking systems, e-commerce websites, and Business Intelligence tools through APIs. This creates a research gap that this paper aims to address.

Therefore, the main purpose of this paper is to explore API integration of Accounting Information Systems with external business and fiscal platforms in Albania. The paper identifies the main types of integration implemented in the Albanian AIS market, examines how these integrations operate in practice, and analyzes their benefits and challenges. By focusing on the Albanian context, the study contributes to a better understanding of how AIS are evolving from isolated accounting

applications into interconnected digital platforms that support process automation, fiscal compliance, reporting efficiency, and managerial decision-making.

2. Literature Review

An API (Application Programming Interface) is a set of rules or protocols that enables software applications to communicate and exchange data, features, and functionality (Goodwin, 2024). In other words, an API can be understood as a bridge between two different systems, enabling them to communicate and exchange data through a common set of rules. For this communication to occur successfully, both systems must follow the same standards and protocols defined by the API. Since digitalization is a fundamental part of the business life cycle, all the companies must comply with these new conditions, in order to stay competitive in the market. According to Ofoeda et al. (2024), API integration supports organizational agility by allowing digital platforms and systems to connect, share functionality, and respond more quickly to business needs. While Mathijsen et al. (2020) states that APIs enable organizations to integrate business processes between departments and with other organizations. This definition emphasizes the process of integrating different departments within the same organization, which is common in companies that operate across multiple business activities. This practice is also frequently observed in Albania, where a company may use one system for restaurant operations and another system for the finance department. In such cases, integration becomes necessary between the restaurant's sales software and the financial/accounting system, enabling sales data to be transferred accurately and efficiently to the finance department.

API integration between Accounting Information Systems and external platforms can be implemented through different communication and authentication methods. The most common authentication methods include Basic Authentication, Digest Authentication, API Keys, token-based authentication, OAuth 2.0, certificate-based authentication (Siriwardena, 2020). While the most common communication methods include REST APIs, SOAP web services, Remote Procedure Call, webhooks, message queues, file-based transfers, direct database connections, and Electronic Data Interchange. They may operate synchronously, asynchronously, in real time, or through batch processing. Basic and Digest Authentication rely on user credentials, while API Keys and tokens provide more flexible access control. OAuth 2.0 is suitable for secure and delegated authorization, especially in cloud and banking

integrations. Certificate-based authentication is important in high-security or regulatory environments, such as fiscal and public platforms. From a communication perspective, SOAP is commonly associated with structured XML-based services, while REST APIs are widely used in modern integrations because of their flexibility and simplicity (Riaz et al., 2021). Webhooks support real-time communication by allowing one system to notify another when a specific event occurs.

Table 1 presents a summary of main authentication and authorization methods used in AIS-API integration.

Table 1. Authentication methods used in AIS-API integration

Category	Method	Explanation	Typical AIS use
Credential-based access	Basic Authentication	Username and password are sent with each request.	Simple internal AIS integrations
Credential-based access	Digest Authentication	Uses a challenge-response mechanism; password is not sent directly.	Legacy or internal integrations
Key/token access	API Key	A unique key identifies and authorizes the system	POS, e-commerce, fiscal services
Key/token access	Token-based authentication	Temporary access token is used after login	Cloud AIS, ERP, banking
Key/token access	OAuth 2.0	Delegated authorization without sharing the password.	Banking, cloud platforms, ERP/CRM
Strong identity	Certificate-based authentication	Digital certificates verify the identity of the system/entity.	Fiscal platforms, banks, public systems

AIS is commonly defined in two ways: first, as a system that records, processes, analyzes, and reports financial and non-financial information; second, as a computerized system that combines accounting with information technology. (Zaçe & Shuli, 2025). AIS is a system that records, processes, summarizes, reports, and communicates business transactions, providing both financial and non-financial information for decision-making (Richardson et al., 2024). AIS are accounting software packages that are used to record, process, save and report financial and non-financial information as quickly as possible. Nowadays, it is important to emphasize

the information technology component when defining Accounting Information Systems, as technology has become a crucial part of every modern AIS (Romney et al., 2021). Technological developments have significantly improved the way transactions are recorded and processed within AIS and ERP systems. In particular, many AIS/ERP platforms around the world have improved the process of recording purchase invoices. Instead of entering invoices manually, users can now import them directly into the software package or use APIs to retrieve them automatically from tax platforms, other accounting systems, or external business applications. In this context, in Albania some software like Alpha Web or Financa 5 has automated the way you record the purchase invoices. Since here is implemented the fiscalization process, these two systems get automatically from SelfCare the purchase invoices and they import them in their systems using an API as a connection.

3. Albanian Context

In Albania, companies vary significantly in size, ranging from micro businesses to large enterprises, and as a result, they have adopted different software solutions tailored to their specific operational needs. The Albanian AIS market is primarily dominated by local software providers such as Alpha Web, Financa 5, Bilanc, Elif, and other accounting software packages, which are widely used due to their affordability and alignment with local regulatory requirements. In addition to these domestic solutions, several global ERP systems, including Microsoft Dynamics, SAP, and Odoo, have also been implemented. However, their presence remains limited, as they account for a smaller market share, mainly because of the high costs associated with purchase, customization, and implementation.

The local AIS providers mentioned above are primarily specialized in managing accounting and finance processes, from document registration to the generation of financial and non-financial reports. However, they are generally not focused on POS software, which is specifically designed to manage sales operations. This situation creates the need for many businesses, especially restaurants, hotels, bars, markets to use two different software systems: a POS system for restaurant sales and an AIS for the finance department.

As a result, integration between these two systems becomes necessary. Through API integration, the POS software and the AIS can communicate with each other, allowing sales data to be transferred automatically, accurately, and efficiently from the restaurant's sales system to the accounting and finance system. For this situation

we have many examples like the integration of Logic.al with Alpha Web, Logic.al with Financa 5, easyPos with Alpha Web, devPOS with Alpha Web/Financa 5, etc.

The second type of integration is the integration between Accounting Information Systems and SelfCare, the fiscalization portal used in Albania. Since 2021, based on Law No. 87/2019 “On the Invoice and the Circulation Monitoring System,” companies operating in Albania have been required to implement the fiscalization process and obtain the necessary fiscalization certificate. Only after completing this process can they issue fiscalized sales invoices to their customers.

At the same time, AIS providers must also be licensed by AKSHI in order to enable the issuance of fiscalized invoices directly from their software systems. Therefore, fiscalization involves two main parties: the AIS provider, which must be authorized to offer fiscalization functionality through its software, and the business entity, which must be registered and certified to use the fiscalization system.

This creates a strong need for integration between AIS platforms and the SelfCare/fiscalization system. Through API integration, sales invoices generated in the AIS can be transmitted electronically to the fiscalization platform, allowing businesses to comply with legal requirements while reducing manual work, improving data accuracy, and increasing reporting efficiency.

The process of issuing issue a fiscalized invoice is presented in figure 1.

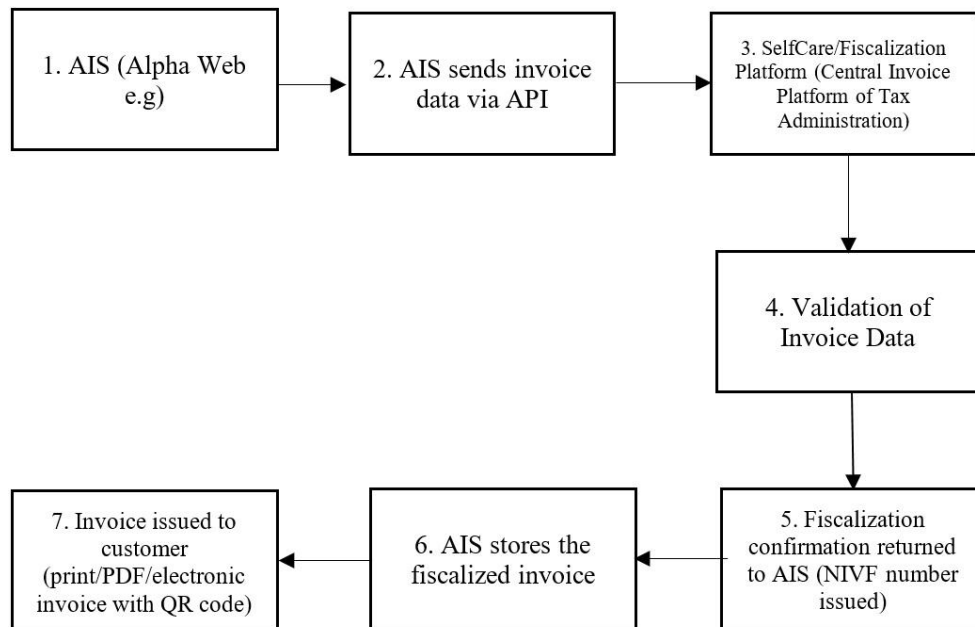


Figure 1. Albanian Fiscalization Process

The third type of integration discussed in this paper is the integration between banking systems and Accounting Information Systems. This type of integration enables the automatic connection of a company's bank transactions with the AIS used by its finance department. In practical terms, this means that bank transactions no longer need to be recorded manually one by one. Instead, through API integration, bank transaction data can be transferred automatically from the banking system to the AIS, improving efficiency, reducing manual work, and increasing the accuracy of accounting records.

The fourth type of API integration is the integration between e-commerce websites and Accounting Information Systems. In order to increase sales and improve market reach, companies often present their products on their websites, where customers can view product characteristics, prices, available quantities, colors, and other relevant details. After a customer completes a purchase through the website, the sales transaction can be automatically imported into the AIS through API integration. At the same time, the inventory balance is updated automatically, ensuring that accounting and stock records remain accurate and up to date.

This type of integration saves time for both the company and the customer. It reduces manual data entry, improves the accuracy of sales and inventory records, and enables faster processing of online transactions.

The fifth type of integration is the integration between Accounting Information Systems and Business Intelligence platforms, such as Power BI. This type of integration provides companies with greater flexibility in designing and generating reports that may differ from the standard reports available within the AIS itself. As a result, businesses can create customized financial and non-financial reports according to users' specific information needs.

The connection between an AIS and a Business Intelligence platform is usually enabled through an API or another data connection mechanism, which allows the two systems to exchange data. In many cases, successful implementation requires technical knowledge of both the AIS and the BI platform in order to configure the connection, extract the necessary data, and design meaningful reports and dashboards.

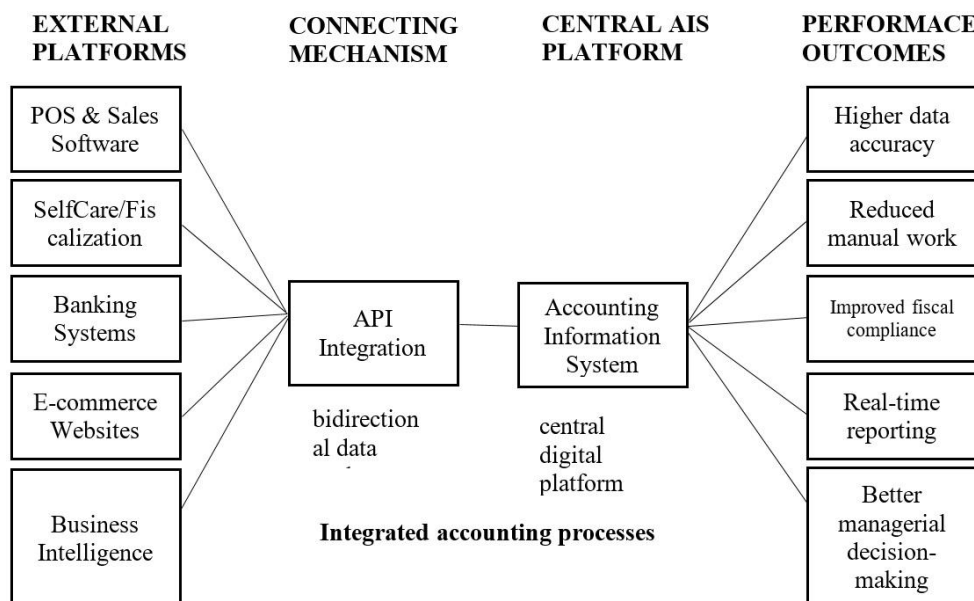


Figure 2. AIS integration types in Albania

Figure 2 highlights the main integration types included in this paper and that we have analyzed during our work.

4. Research Problem, Objectives and Research Questions

In recent years, Accounting Information Systems have become essential tools for managing accounting, financial reporting, invoicing, inventory, and tax compliance processes. In Albania, businesses of different sizes, ranging from micro businesses to large companies, use various local and international AIS/ERP solutions according to their operational needs. At the same time, these businesses also use several external platforms, such as POS and sales systems, SelfCare/fiscalization platforms, banking systems, e-commerce websites, and Business Intelligence tools.

As a result, Accounting Information Systems are no longer used only as isolated accounting software packages. They increasingly need to communicate with other business and fiscal platforms in order to exchange data automatically, accurately, and efficiently (Nofel et al., 2024). This need has become more important in Albania due to the fiscalization process and the use of the SelfCare platform, which require businesses and AIS providers to ensure the electronic transmission and processing of fiscalized invoices.

However, many companies still face difficulties in integrating their AIS with external systems. When systems are not properly integrated, businesses may rely on manual data entry, repeated registration of the same transactions, manual reconciliation, and separate reporting processes (Azevedo et al., 2025). These issues can increase the risk of accounting errors, delays in reporting, inconsistencies between systems, and problems with fiscal compliance.

Although API integration is becoming increasingly important in the Albanian business environment, limited academic research has focused specifically on the integration of AIS with external business and fiscal platforms in Albania. Existing studies generally address AIS, ERP systems, digital accounting, or fiscalization, but less attention has been given to how these systems are connected in practice through APIs. Therefore, this study addresses this gap by exploring the main types of API integration used in Albania, their practical benefits, and the challenges faced by businesses and software providers.

The main objective of this study is to explore API integration of Accounting Information Systems with external business and fiscal platforms in Albania.

More specifically, the study aims to:

1. Identify the main types of API integration between AIS and external business or fiscal platforms in Albania.

2. Analyze how AIS platforms are integrated with POS and sales systems, SelfCare/fiscalization platforms, banking systems, e-commerce websites, and Business Intelligence tools.
3. Examine the main authentication methods used by AIS providers to integrate with other systems.
4. Explore the benefits of API integration for accounting accuracy, reporting efficiency, fiscal compliance, and managerial decision-making.
5. Identify the main technological, organizational, and regulatory challenges related to API-based AIS integration in Albania.

Based on the research problems and objectives, this study is guided by the following research questions:

1. What are the main types of API integrations between AIS and external business or fiscal platforms in Albania?
2. How has fiscalization influenced the need for AIS integration in Albania?
3. What benefits do Albanian companies obtain from integrating AIS with POS, banking, e-commerce, SelfCare, and BI platforms?
4. How does API integration improve AIS performance, reporting quality, and managerial decision-making?

5. Conceptual Framework

This study adopts the Technology-Organization-Environment framework as the main conceptual lens. The TOE framework is suitable because API integration of Accounting Information Systems is influenced not only by technological factors, such as system compatibility, API availability, data security, and real-time data exchange, but also by organizational factors, such as company readiness, staff skills, management support, and process automation needs (Al Hadwer et al., 2021). In addition, the Albanian context gives particular importance to environmental factors, especially fiscalization requirements, the SelfCare platform, banking digitalization, and regulatory compliance.

Since this paper follows an exploratory qualitative research design, the purpose of the conceptual framework is not to test hypotheses, but to guide the analysis of the main forms, benefits, and challenges of API integration. Therefore, the TOE

framework is used as an analytical structure for interpreting the evidence collected from literature, official documents, legal and technical materials, and semi-structured interviews with AIS and ERP software representatives.

6. Methodology

This study follows an exploratory qualitative research design. This approach is appropriate because API integration between Accounting Information Systems and external business and fiscal platforms remains an under-researched topic in the Albanian context. The study aims to identify the main forms of integration, explain how these integrations operate in practice, and analyze their benefits and challenges. The analysis is based on practical examples of AIS integration with POS systems, the SelfCare fiscalization platform, banking systems, e-commerce websites, and Business Intelligence tools.

In this study we have used both secondary and primary data. Secondary data were collected through literature review, official technical documentation, laws, reports and official websites. These sources were used to build the theoretical background of the study and to understand the legal and technical environment in which AIS integration takes place in Albania. Primary data were collected through four semi-structured interviews with IT managers and software representatives from major AIS and ERP providers operating in Albania. The interviews were conducted with representatives from IMB (Alpha Web), Financa 5, Bilanc, and Prisma, an Odoo partner. The main reason for selecting these AIS companies was that they account for the largest share of the AIS market in Albania. These interviews provided practical insights into how API integration is implemented, what types of integrations are most frequently requested by businesses, and what technical or organizational challenges are encountered during implementation. The participants were chosen based on their knowledge of software implementation, API connections, fiscalization processes, and integration with external systems such as POS platforms, SelfCare, banking systems, e-commerce websites, and Business Intelligence tools. The interviews were designed to collect information about the practical implementation of API integration in the Albanian AIS environment. The interview questions were formulated to explore the main types of API integration implemented by each company, the authentication methods used, and the estimated time required to implement different types of integrations for various customers. The questions also aimed to understand whether the technical documentation was clear

and well structured, how effective the collaboration and support from the other integrated software providers were, and what impact the implementation of API integration had on the client company. In addition, the interviews explored the scalability of the integration process and the extent to which existing API solutions can support future business growth and additional integration needs. The semi-structured format was selected because it provides flexibility during the interview process. It allows the researcher to ask predefined questions while also giving participants the opportunity to explain practical cases, technical issues, and specific experiences from real implementation projects.

The collected data were analyzed using a qualitative thematic approach. First, the information from literature, legal documents, technical materials, and interviews was reviewed in order to identify the main recurring themes related to API integration. Then, the findings were grouped according to the conceptual framework of the study, which is based on the Technology–Organization–Environment approach.

The analysis was organized around three main dimensions:

1. Technological factors, including API availability, system compatibility, data synchronization, authentication methods, security, documentation quality, and error handling.
2. Organizational factors, including company size, transaction volume, staff digital skills, management support, implementation cost, and the need for process automation.
3. Environmental and regulatory factors, including fiscalization requirements, SelfCare, AKSHI authorization, banking digitalization, e-commerce development, and market demand for integrated software solutions.

In addition, the analysis classified the main types of API integration identified in the Albanian context. These include integration between AIS and POS or sales systems, AIS and SelfCare, AIS and banking systems, AIS and e-commerce websites, and AIS and Business Intelligence platforms. The second part of analysis highlighted to authorization methods that each AIS uses for integration purposes. The inclusion of several AIS and ERP providers also improved the reliability of the findings, as the study does not rely on the experience of only one software company. Instead, it includes insights from local AIS providers and an international ERP implementation partner. This provides a broader view of the Albanian software market and the different ways in which API integration is implemented.

7. Results and Discussion

7.1. Authentication Methods

According to the findings derived from the primary and secondary data, the authentication methods most frequently used in the implementation of AIS integrations are summarized in Table 2.

Table 2. Authentication Methods

	Authentication method	Notes
Alpha Web	<ol style="list-style-type: none"> 1. Basic authentication 2. Digest authentication 3. Certificate-based authentication 	They support both these 2 authentication methods. In Basic Authentication, credentials are sent through the Authorization header, while in Digest Authentication the password must be encrypted using the method described in the technical documentation. Certificate-based authentication is used for fiscalization.
Financa 5	<ol style="list-style-type: none"> 1. SQL user authentication 2. Certificate-based authentication 	The external system uses a SQL/ database username and password. In this case it accesses directly the AIS database. Certificate-based authentication is used for fiscalization.
Bilanc	<ol style="list-style-type: none"> 1. Basic authentication 2. Certificate-based authentication 	Credentials are sent through the Authorization header. Certificate-based authentication is used for fiscalization.
Odoo (Prisma)	<ol style="list-style-type: none"> 1. User-specific API key authentication 	Authenticates external systems through a user-specific API key used in place of the user's password during XML-RPC or JSON-RPC calls.

Alpha Web, Financa 5 and Bilanc have got the licence to issue fiscalized invoices in Albania, that's why they use the certificate-based authentication through XML Digital Signature. Authentication is performed through an electronic certificate and XML digital signature. The invoice and the SOAP request message are signed using the taxpayer's private key, while the Central Invoice System verifies the certificate, taxpayer identification number, and message signature.

7.2. Integration between AIS and SelfCare/Fiscalization Platform

The integration between AIS and the SelfCare/fiscalization platform represents one of the most important forms of API integration in Albania. This type of integration is strongly influenced by the fiscalization reform and the legal obligation to issue fiscalized invoices. From the four systems analyzed in this paper, three have obtained a fiscalization licence: Alpha Web, Financa 5, and Bilanc. In contrast, Odoo does not provide fiscalization directly through its own native functionality in the Albanian context but relies on third-party companies to enable the fiscalization process. In other words, Odoo uses an intermediary solution, or “bridge,” which connects the ERP system with a licensed fiscalization software provider. This bridge allows invoices generated in Odoo to be transmitted and fiscalized through a software solution that has already obtained the required fiscalization licence.

In terms of fiscalization process, the AIS system:

1. creates the electronic invoice
2. signs the invoice with the private key of the taxpayer’s electronic certificate
3. places the invoice inside the SOAP/XML message
4. also signs the request message with the same private key
5. sends the message to Central Invoice System through SOAP/HTTPS

Central Invoice System then checks:

1. if the certificate is valid
2. if it was issued by a trusted certification authority
3. if the NIPT/TIN in the certificate corresponds to the invoice issuer
4. if the certificate has not been revoked
5. if the digital signature corresponds to the message and the certificate’s public key.

These are the steps to issue an electronic invoice, which is a business-to-business invoice that will be paid by bank. In terms of integration these are the same steps to follow if you want to fiscalize a simple invoice.

The SelfCare integration also affects the purchase side of accounting. In some cases like Alpha Web and Financa 5 did, purchase invoices issued by suppliers can be retrieved from SelfCare and imported into the AIS. This reduces the need to record

purchase invoices manually and improves the accuracy of VAT processing and bookkeeping.

7.3. Integration between AIS and POS or Sales Systems

The integration between AIS and POS or sales systems is especially important for businesses with frequent sales transactions, such as restaurants, bars, hotels, supermarkets, and retail companies. In many cases, these businesses use one software system for sales operations and another system for accounting and finance. For example, a restaurant may use a POS system to record daily sales, while the finance department uses an AIS such as Alpha Web, Financa 5, Bilanc, or another accounting platform.

Without integration, sales data must be manually transferred from the POS system to the AIS. This increases the risk of errors, duplicated records, delays, and inconsistencies between sales and accounting information. Through API integration, sales data can be transferred automatically from the POS system to the AIS. This improves the accuracy of accounting records and reduces the workload of the finance department. All four AIS providers analyzed in this paper have implemented this type of integration, mainly for businesses operating in sectors such as bars, restaurants, hotels, and supermarkets. According to the interview participants, the first implementation within a specific industry usually requires more time, as the technical structure, data mapping, business logic, and integration rules must be configured and tested carefully. However, once the first implementation is completed, similar integrations within the same industry become more replicable, because the business processes and data flows are generally similar.

Another important finding from the interviews was that all four companies use Postman as a tool for testing API requests, setting up new integrations, and identifying or troubleshooting possible errors during the integration process.

7.4. Integration between AIS and Banking Systems

The other type of integration identified in the study is the integration between AIS and banking systems. This type of integration enables bank transactions to be transferred automatically from the banking platform to the AIS. In practical terms, this means that the finance department does not need to record each bank transaction manually.

Banking integration can include different types of transactions, such as payments of purchase invoices, collections from customers, payment of salaries, payment of social and health contributions, tax payments, bank commissions, and transfers between bank accounts. This integration improves accounting efficiency because bank movements can be imported directly into the AIS and used for reconciliation and bookkeeping.

Because of the need of high security and existence of sensitive data, this type of integration is not fully implemented in Albanian market. Financa 5 has an ongoing project with a bank in Abania where they get all the statement data from the bank and import them to their AIS. This is implemented in few customers mainly in 2025 and 2026. Alpha Web also has an ongoing project related to this type of banking integration, although it has not yet been fully developed. However, the company has already implemented another type of banking-related integration for some customers, where sales invoice data generated from the POS software can be sent directly to the bank when the invoice is expected to be paid by card.

Odoo, through Prisma as its implementation partner, is also developing this type of banking integration and is currently in the final stages of implementation. However, Prisma has already implemented another form of integration related to banking transactions. In this case, sales invoice data, especially invoices that will be paid by card, can be transmitted from Odoo to the bank. This shows that banking integration can operate in different directions: not only by importing bank transactions into the AIS, but also by sending invoice or payment-related data from the AIS to the banking system.

The main benefit of this integration is the reduction of manual work and the improvement of accounting accuracy. However, this type of integration may require stronger security and authorization mechanisms because banking data are sensitive. For this reason, authentication methods, access control, and secure data exchange are important technological factors in banking-related API integration.

7.5. Integration between AIS and E-commerce Websites

The findings also show that API integration between AIS and e-commerce websites is becoming increasingly important as companies expand their online sales channels. In this type of integration, product data such as item descriptions, prices, stock quantities, and other characteristics may be displayed on the company's website using data from the AIS or inventory system.

When a customer completes an online purchase, the sales transaction can be automatically transferred to the AIS. At the same time, the inventory balance can be updated automatically. This reduces manual data entry and helps maintain consistency between the website, inventory records, and accounting information. This is a type of integration that is implemented from all four AIS softwares considered in this paper.

This type of integration is especially useful for companies that sell products online and need updated information about product availability, sales prices, customer orders, and stock balances. It also improves customer service because the website can show more accurate product information and process orders faster.

7.6. Integration between AIS and Business Intelligence Platforms

The fifth type of integration identified in the study is the connection between AIS and Business Intelligence platforms, such as Power BI. This integration allows companies to use accounting and operational data for customized reports, dashboards, and performance analysis.

Traditional AIS platforms usually include standard financial and non-financial reports. However, these reports may not always satisfy the specific needs of managers and users. Business Intelligence platforms provide more flexibility because they allow users to create customized reports and dashboards based on data extracted from the AIS.

Through API integration or other data connection mechanisms, BI platforms can receive updated data from the AIS and transform it into visual and analytical reports. This supports better managerial decision-making because managers can access more flexible, timely, and understandable information. As identified from the interviews, one of the most useful lightweight Business Intelligence solutions in the Albanian AIS context is `delta.alpha.al`. Delta is a web-based Business Intelligence and data visualization platform offered within the Alpha software ecosystem of IMB. It enables users to transform financial and operational data into customizable dashboards, charts, tables, and managerial reports.

In this case, the integration process is relatively simpler because Delta operates within the Alpha Web ecosystem. Users have access to a dedicated interface where they can configure the connection between Alpha Web and `delta.alpha.al` in a more straightforward way. This allows accounting and operational data from Alpha Web

to be used for flexible reporting and data visualization, supporting faster analysis and better managerial decision-making.

This finding shows also that API integration does not only support accounting registration and fiscal compliance. It also supports analytical reporting and strategic decision-making.

7.7. Synthesis of Findings through the TOE Framework

The findings of this study can be summarized through the Technology-Organization-Environment (TOE) framework. Although the previous subsections examined the different types of AIS integration separately, the TOE framework helps explain the main factors that influence the implementation of API integration in the Albanian context. Since this study follows an exploratory qualitative approach, the framework is used to interpret the findings rather than to test formal hypotheses.

From the technological perspective, API integration depends on factors such as system compatibility, API availability, authentication methods, data security, technical documentation, data mapping, and error handling. The findings indicate that the technical complexity of integration differs according to the type of external platform involved. For example, integration with POS and sales systems requires the configuration of data structures, business rules, and synchronization procedures. According to the interview participants, the first implementation within a particular industry generally requires more time because the integration logic must be carefully configured and tested. Once the first implementation is completed, similar integrations can be implemented more easily because businesses in the same industry often follow comparable processes. The findings also show that the four AIS providers use Postman for testing API requests and identifying technical errors during the integration process.

Security is particularly important in fiscalization and banking integration. Fiscalization requires the use of electronic certificates, XML digital signatures, and secure SOAP/HTTPS communication. Banking integration also involves sensitive financial data and therefore requires stronger authentication, access control, and secure data-exchange mechanisms. These technological requirements help explain why banking integration remains less developed in Albania than integration with POS systems, SelfCare, or e-commerce platforms.

From the organizational perspective, the implementation of API integration is influenced by company readiness, transaction volume, employee skills, management support, implementation cost, and the need for automation. API integration is especially beneficial for businesses with a high number of transactions, such as restaurants, hotels, supermarkets, retail companies, and e-commerce businesses. For these companies, the automatic transfer of sales, inventory, and banking data can reduce manual work, duplicated records, and inconsistencies between operational and accounting systems.

However, the availability of an API alone does not guarantee successful integration. Companies must also have employees with sufficient technical and accounting knowledge, clearly defined business processes, and management support. Integration with Business Intelligence platforms, for example, requires knowledge of both the AIS and the analytical platform in order to extract, organize, and interpret the relevant data. Therefore, organizational capacity is necessary for companies to obtain the full benefits of integrated systems.

The environmental dimension is particularly important in Albania. Fiscalization requirements, the SelfCare platform, AKSHI authorization, banking digitalization, e-commerce growth, and market demand for integrated software have influenced the development of AIS integration. Fiscalization appears to be the strongest environmental driver. The legal obligation to issue fiscalized invoices has required AIS providers and Albanian businesses to connect their software with the national fiscalization infrastructure. Therefore, SelfCare integration is driven not only by the need for efficiency but also by legal and regulatory compliance.

Other environmental developments also influence integration demand. The growth of online sales encourages companies to connect their e-commerce websites with accounting and inventory systems. Banking digitalization creates opportunities for the automatic exchange of financial transactions, while increasing managerial demand for timely and flexible information supports integration with Business Intelligence platforms.

Overall, the findings show that API integration is not only a technical process. Its implementation depends on the interaction between technological capabilities, organizational readiness, and environmental pressures. In Albania, fiscalization has accelerated the development of integration capabilities, while business demand for automation, accuracy, and improved reporting has encouraged integration with POS, banking, e-commerce, and BI platforms. The effectiveness and future expansion of

these integrations will depend on secure technologies, clear technical documentation, qualified staff, management support, and continued cooperation between AIS providers and external platform operators.

8. Conclusion

This study explored the API integration of Accounting Information Systems with external business and fiscal platforms in Albania. The main purpose was to identify the key types of AIS integration implemented in the Albanian market, explain their practical use, and analyze their main benefits and challenges. Using an exploratory qualitative approach, the study was based on secondary data and semi-structured interviews with representatives of major AIS and ERP providers operating in Albania.

The findings show that AIS platforms in Albania are no longer used only as isolated systems for recording accounting transactions. Instead, they are increasingly functioning as central digital platforms that communicate with other business and fiscal systems through APIs. The study identified five main types of integration: integration with POS and sales systems, SelfCare/fiscalization platforms, banking systems, e-commerce websites, and Business Intelligence platforms.

Among these, the integration with SelfCare/fiscalization is one of the most important, because it is directly connected with legal and regulatory requirements. Fiscalization has increased the need for AIS providers and businesses to exchange invoice data electronically with the fiscalization platform. At the same time, integrations with POS systems, banking platforms, e-commerce websites, and BI tools support automation, faster reporting, better inventory control, and improved managerial decision-making.

Overall, API integration provides several important benefits for Albanian businesses. It reduces manual data entry, improves accounting accuracy, increases reporting efficiency, supports fiscal compliance, and improves the quality of information used for decision-making. These benefits are especially important for businesses with a high volume of transactions, such as restaurants, hotels, supermarkets, retail companies, and e-commerce businesses.

However, the study also shows that API integration is not only a technical process. Its success depends on several technological, organizational, and regulatory factors. Technological factors include API availability, authentication methods, system

compatibility, documentation quality, data security, and error handling. Organizational factors include company size, staff skills, transaction volume, implementation cost, and management support. Environmental factors include fiscalization requirements, SelfCare, AKSHI authorization, banking digitalization, e-commerce development, and market demand for integrated systems.

In conclusion, API integration is becoming a key component of modern AIS development in Albania. It transforms AIS from a traditional accounting recording tool into an integrated digital platform that supports accounting automation, fiscal compliance, reporting quality, and business decision-making. Future improvements should focus on clearer API documentation, stronger security standards, better cooperation between software providers, and improved digital skills among accountants and finance professionals.

9. Limitations and Future Research

This study has several limitations. First, the research is exploratory and qualitative, so the findings cannot be generalized statistically to all Albanian companies. Second, the primary data are based on a limited number of interviews with IT managers and software representatives from AIS vendors. Third, API integration is a rapidly developing field, and technical practices may change as software systems, fiscal platforms, banking services, and regulatory requirements evolve.

Future research may extend this study by using a quantitative approach and collecting data from a larger sample of Albanian businesses. Such research could measure the relationship between API integration and variables such as accounting accuracy, reporting efficiency, fiscal compliance, process automation, user satisfaction, and managerial decision-making. This would allow researchers to test empirically whether API integration has a significant effect on AIS performance.

Future studies may also include the perspective of accountants, finance managers, business owners, and system users. This would help compare the views of software providers with the actual experience of companies that use integrated AIS solutions in their daily operations.

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