

Tanja Janačković

Higher Business School
of Professional Studies
Department of Finance,
Accounting and Banking
Leskovac

Slavoljub Milovanović

University of Niš
Faculty of Economics
Department for Accounting,
Mathematics and Informatics

SOFTWARE SUPPORT FOR FINANCIAL REPORTING ON THE INTERNET IN THE PRACTICE OF COMPANIES IN THE REPUBLIC OF SERBIA

Softverska podrška finansijskom izveštavanju na
internetu u praksi preduzeća u Republici Srbiji

Abstract

Modern business conditions and the development of information technologies impose the need for introducing software solutions which will, if necessary, enable access to financial data via the internet. A significant segment of business activities of a modern company is to ensure the availability and processing of financial information at any time and place. A great challenge encountered by companies today is the need to improve their operational efficiency in the creation and distribution of financial statements in accordance with legal regulations. Accordingly, the most advanced software solutions for financial reporting have been developed around the world. Thanks to the application of online accounting software, it is possible to access financial and business reports using a regular web browser, at any time and location if internet access is provided. This paper includes empirical research of the features, advantages, functionalities, and modules of software solutions for web financial reporting in the practice of companies in the Republic of Serbia. The aim of the paper is to perform an aggregate and quantitative analysis of software solutions that are most used in the practice of domestic companies, as well as to compare their characteristics with the characteristics of the best online accounting software solutions used worldwide, in order to point out their level of quality and functionality in modern business conditions.

Keywords: *financial reporting, internet, web technology, software.*

Sažetak

Savremeni uslovi poslovanja i razvoj informacionih tehnologija, nameću potrebu za uvođenjem softverskih rešenja, koja će po potrebi omogućiti pristup finansijskim podacima preko interneta. Značajan segment poslovanja savremenog preduzeća jeste da se obezbedi dostupnost i obrada finansijskih informacija u svakom trenutku i na svakom mestu. Veliki izazov sa kojim se susreću preduzeća danas jeste potreba za unapređenjem njihovih operativnih efikasnosti u kreiranju i distribuciji finansijskih izveštaja, a u skladu sa zakonskim propisima. U skladu sa tim, razvijena su najsavremenija softverska rešenja za finansijsko izveštavanje širom sveta. Zahvaljujući primeni onlajn računovodstvenog softvera, moguće je pristupiti finansijskim izveštajima i izveštajima o poslovanju, upotrebom običnog veb pregledača, u svakom trenutku i na bilo kojoj lokaciji, ukoliko je obezbeđen pristup internetu. Rad obuhvata empirijsko istraživanje karakteristika, prednosti, funkcionalnosti i modula softverskih rešenja za veb finansijsko izveštavanje u praksi preduzeća u Republici Srbiji. Cilj rada je da se agregatnom i kvantitativnom analizom softverskih rešenja koja se najviše koriste u praksi domaćih preduzeća, kao i komparacijom karakteristika ovih rešenja sa karakteristikama najboljih onlajn računovodstvenih softverskih rešenja koja se koriste u svetu, ukaže na njihov nivo kvaliteta i funkcionalnosti u savremenim uslovima poslovanja.

Ključne reči: *finansijsko izveštavanje, internet, veb tehnologija, softver.*

Introduction

An increasing number of companies, especially in developed economies, recognize the benefits of using modern technologies to support the accounting and financial reporting process. The effects of the development of information technologies on accounting applications are numerous and reflected in the following sources [16, p. 12], [5], [14], [17], [19]. Implementation of various technological tools in the accounting profession (e.g., the internet, computer-aided production, communication technologies) ensures detailed and accurate information. Information technology (IT) also affects the structure, functions, and management of organizations, thus changing the structure of accounting activities and the competitive environment of the accounting profession members. In addition, it reduces the burden imposed on the accounting sector in terms of recording, classifying, and reporting data. In view of this, the role of the accounting profession changed in terms of designing a management system and applying, analyzing and interpreting data. In addition to the design, development, management, control, and evaluation, IT creates new business opportunities for the accounting profession (e.g., finding new clients and opening up to new geographic areas). Owing to the availability of publications on the internet, it enhances the availability of information and the competitiveness of the accounting profession. The change in the financial reporting process in terms of form and content, along with the changes in reporting requirements, has increased the application of IT in financial reporting. Modern business conditions impose the need for periodic reporting intensively followed by continuous financial reporting and the presentation of financial statements via electronic media. Applications resulting from IT development (e.g., e-tax return, e-report) contribute to time and money savings, providing accountants with accurate and efficient information.

Cloud computing, as one of the technologies that affect all aspects of business operations, contributes to better efficiency of the business processes, in which it finds significant application, including the field of accounting. Taking into account the benefits of using this technology, an increasing number of successful companies in developed

countries use it to support the process of web financial reporting. Cloud computing includes software that is delivered on the internet as a service, as well as hardware and system software in data centers¹ which provide these services [1]. “Modern accounting systems are closely linked to the new cloud computing technologies, while web-based accounting software is based on internet technologies, where information is stored on servers or in the cloud” [15, p. 720]. Cloud computing, by definition of the National Institute of Standards and Technology (NIST), is a “model that enables reliable and demand-driven access to a network of a common group of adjustable (configurable) computer resources (e.g., network, servers, warehouses, applications, and services) that can quickly cater to users with a minimum effort put into management or interaction with the provider” [12], [15].

The present empirical research included applications that are most used by our companies. The investigated applications include cloud solutions and traditional software solutions to support financial reporting on the internet. The first part of the paper presents an aggregate and quantitative analysis of their characteristics and functionalities, which are significant for the process of web financial reporting. The second part includes a comparative analysis of Serbian and the best foreign software packages to support web financial reporting for the purpose of assessing the level of quality and functionality of Serbian solutions in modern business conditions.

Analysis of the characteristics and functionality of software solutions to support web financial reporting in the practice of companies in the Republic of Serbia

The survey of software support to web financial reporting in the practice of domestic enterprises has included 9 applications that are most used by our companies. The results of the research are part of a doctoral dissertation [11]. The researched applications are BIS-ERP-WEB, Minimax, e-računi, Billans, asw:dominus, AB Soft, Infosys, FIS, PANTHEON and include 1) cloud solutions,

¹ The place where computer systems, data storage systems, and telecommunication equipment are located.

2) traditional software solutions, 3) business and 4) online accounting software solutions to support web financial reporting. Cloud solutions are BIS-ERP-WEB, Minimax, e-računi, Billans, asw:dominus, while AB Soft, Infosys, FIS, PANTHEON belong to the group of traditional software solutions. Business solutions include AB Soft, Infosys, BIS-ERP-WEB, PANTHEON, FIS, asw:dominus, while online accounting software solutions are Minimax, e-računi and Billans. Business solutions account for 67%, while accounting solutions comprise 33% of the researched applications. Certain solutions are designed for small companies and specific activities, while others can be used in different sectors and activities, regardless of the company size. The specific needs of each company determine the choice of appropriate software to support web financial reporting in terms of features and functions to support. The division of software solutions in the sample was carried out according to the size of company and types of activities. Based on these classification criteria, the solutions in the sample are grouped according to their characteristics and functionalities to those that match: a) companies from different sectors and with different

activities, as well as companies of different sizes, b) small and medium-sized companies, c) primarily medium-sized and large companies from all spheres, and d) companies with their own accounting department, external accounting, or accounting agencies.

As previously pointed out, the research encompassed the characteristics, advantages, functions, and modules of the aforementioned software solutions. Below is a review of those modules and functionalities of importance for the process of financial reporting on the internet (Table 1).

In addition, there is also an overview of the characteristics of software solutions that are relevant to the process of web financial reporting, as well as their representation in a given sample of applications. Apart from that, in order to assess the level of quality and functionality of applications in relation to the requirements of modern business, the characteristics that are common to all applications from the sample are considered. A review of software characteristics significant for web financial reporting is given in Table 2. There are 11 features² which

² Characteristics can be changed and improved by upgrading the existing solutions, given the flexibility of the software solutions.

Table 1: Modules and functionality of the software for support to the financial reporting process

Software	Modules and functionalities of the software for support to financial reporting
AB Soft	Financial accounting (FIPO) – creation and printing of trial balances, logs, various reports from the general ledger for arbitrary periods, balance sheets, and income statements. The data recorded in this application is used by the FINALIS (financial analysis) program for creating additional reports. AB Soft reporting system – web reports – in addition to standard reports (spreadsheets), there is also a possibility of sending messages with the data obtained from reports (messages).
asw:dominus	The financial and bookkeeping module – purchase and sales invoices, cash book, financial statements, general ledger, buyer's and supplier's accounting, statement of accounts.
Infosys	The financial accounting module; Web program: WebInfo, WEBFIN module (access to bookkeeping information on the internet and review of financial statements).
BIS-ERP-WEB	Finance – inputting general ledger orders and various analytics, generating financial reports in PDF and MS Excel format, browsing the web in search of them, and exporting reports in XML.
PANTHEON Accounting	Basic functionalities: general and subsidiary ledgers; automatic posting of documents; checking postings with the possibility to filter them; open items, debts, and receivables; journal voucher and year-end closing; e-business with clients and state institutions. Advanced functionalities: balance sheets, business analytics, and creation and submission of business reports.
FIS	Financial accounting through the Reviews and Reports submodules allows viewing and printing of various reports. Users have a complex open-format report generator available, and there is a possibility of generating reviews and report summaries with a cut-off on a specific day, for a selected period, per organizational unit, as well as legal reports that include a balance sheet, income statement, trial balance, and open item statement forms.
Minimax	Bookkeeping – double-entry bookkeeping, calculations of VAT, interest, fixed assets (add up the value of fixed assets), interim returns, annual returns.
e-računi	Tax settlements and balances – enables automatic creation of basic financial statements (balance sheet and income statement) and other reports, based on the general ledger and the trial balance.
Billans	Financial accounting – double-entry bookkeeping, simple bookkeeping, cash book, interest calculation, VAT calculation, posting statements, annual settlements, annual balance sheet.

Source: [11, p. 218].

include 1) automatic posting in accounting; 2) efficient and controlled access to information; 3) providing accurate and timely information at any time; 4) ease of use; 5) flexibility; 6) generating reports in a variety of formats – PDF, HTML; 7) updating legal changes and standards – legal compliance; 8) integration with e-banking and e-commerce systems; 9) a common database; 10) data security; and 11) a business analytics system³.

Based on the aggregate and quantitative analysis of the characteristics and functionalities of the tested solutions, the level of their quality and functionality in modern business conditions is determined. It is noted that out of the total number of examined applications, nine out of nine 1) support the process of automatic document processing, that is, enable automatic posting in accounting and automatic creation of financial statements; 2) provide efficient and controlled access to accounting and financial information; 3) provide accurate and timely information for accounting, management, and other users at any time, and 4) are characterized by the ease of use of the system.

Exceptional flexibility of the system is characteristic of six examined applications. The solutions are flexible, i.e., they are adaptable to user requirements, as well as the needs of modern management. The solutions are mostly modular. For example, the web version of AB Soft Reporting is flexible, i.e., it can be customized in

3 Business analytics (BA) is the combination of competencies, practices, and technologies that enable continuous iterative research and exploration of the past performance of a business in order to acquire insights into and facilitate business planning. Business analytics focuses on attaining new insights into and comprehension of business performance by using data and statistics.

accordance with the requirements of the user, whereby once created, reports can be used in all reporting variants. The flexibility of this system is at a high level, and it is possible to adapt it to the requirements of management at various levels of corporate governance hierarchy. Modularity or flexibility is also a feature of the asw:dominus system. In addition, this system is not only configurable (it can be used by clients from different industries and sectors of the economy), but also scalable (user organizations can adapt it to large and distributed systems without conditional constraints). Flexibility is also a feature of BIS-ERP-WEB. It is reflected in the fact that this system can be applied in all companies, regardless of their size and activity, while certain companies require setting parameters in accordance with their business activities. The Infosys solution is also flexible, i.e., users can simply upgrade the system in accordance with their specific needs. This solution also enables the creation of a variety of reports within each program segment. PANTHEON is also a solution that can be adapted to any form of business and new market demands, as well as the FIS system, which involves creating a package of solutions with appropriate modules in accordance with the specific needs of the company.

Six out of nine examined applications support the process of generating financial reports in a variety of formats. Ab Soft applications support the generation of hundreds of different reports, as well as the option of printing each report in MS Excel or some other format. In addition, reports can also be submitted in HTML or other formats

Table 2: Overview of features of the software for web financial reporting support

Characteristics of software solutions	Software								
	AB Soft	asw: dominus	Infosys	BIS-ERP-WEB	PANTHEON	FIS	mini max	e- računi	Billans
Automatic posting in accounting	x	x	x	x	x	x	x	x	x
Efficient and controlled access to information	x	x	x	x	x	x	x	x	x
Accurate and timely information at any time	x	x	x	x	x	x	x	x	x
Ease of use	x	x	x	x	x	x	x	x	x
Flexibility of the system	x	x	x	x	x	x			
Generating reports in a variety of formats	x			x	x		x	x	x
Updating legal changes and standards				x	x	x	x	x	x
Integration with e-banking and e-commerce			x	x	x		x	x	x
Shared database		x		x	x		x	x	x
Data backup				x	x		x	x	x
Business analytics system	x	x	x	x	x				

Source: [11, p. 219].

suitable for sending via email. The Ab Soft web reporting system supports the option of SMS reporting while also allowing for the graphical presentation of results, based on various types of graphics. Generating reports in PDF and MS Excel formats and exporting them to XML is provided by the BIS-ERP-WEB software solution. In its framework of advanced functionality, PANTHEON allows export of business and financial reports in various formats (PDF, MS Excel) and via email. In addition, it enables online transfer of balance sheets to the Business Registers Agency (BRA). Through the Minimax application, it is possible to generate reports in PDF and MS Excel formats and create XML files of statistical reports (balance sheet and income statement). The e-računi application supports direct processing of statements in XML format and allows the import and export of the accounting scheme into and from MS Excel. It is also possible to use prepared flexible templates to directly transfer data from the gross balance sheet to the annual financial statement forms. The Billans accounting software solution allows sending reports directly from the program via email, as well as automatically saving all output docs when issuing them in PDF format.

Providing up-to-date billing data is a feature of six examined applications. Such data is provided based on automatic updates of legal changes and standards in the program. For example, the PANTHEON solution is characterized by legal compliance, stability, and reliability. In case the legislation changes (changes in VAT calculation, introduction of fiscalization), the program will automatically be updated the moment the law changes. In addition, the Minimax, e-računi, and Billans software solutions also provide up-to-date billing data and are based on automatic upgrades and rapid implementation of legal changes in order to align with them. The modern BIS-ERP-WEB solution is also in line with the current legal norms and is characterized by flexibility, i.e., ability to comply with changing regulations and standards in a short period of time. In addition, the FIS system provides support and compliance with the International Financial Reporting Standards and the Law on VAT.

The same number of surveyed applications, six out of nine, support integration with e-banking and

e-commerce systems, i.e., enable a connection with these systems. The connection with the e-banking program is enabled within the 'Finansijsko knjigovodstvo' (Financial accounting) segment of the Infosys program. Such connection involves automatic tracking or transferring of payment orders, as well as downloading the statements from the program and automatically posting them in it. The BIS-ERP-WEB software solution allows loading statements, creating giro transfer orders for earnings, and uploading them into the e-banking software. The integration with online banks and stores is also enabled through PANTHEON. The Minimax bookkeeping software provides an e-commerce connection, through which it can automatically communicate and exchange information about the stock status, stock distribution, orders received, as well as the exchange of information on VAT data, payment orders, and clients. Using this software, it is possible to import bank statements from and export payment orders into the e-banking system. The Billans software also enables integration with the electronic banking systems (Halcom, Fx Client, OfficeBanking, Raiffaisen Online, etc.). Owing to its integration with an e-banking program, the e-računi solution exchanges payment orders and bank statements with it, while simultaneously enabling posting and automatic data transfer to the general ledger. It is also possible to link the program to other programs/sites using web services which enable automatic synchronization of item data between the third-party business application and the e-računi software. In addition, it has built-in support for connection to standard platform web stores (Magento, Prestashop, WooCommerce, OpenCart, Shopify).

Simplified exchange of financial data between clients and accounting offices characterizes six out of total of surveyed applications. For example, PANTHEON allows simultaneous access of both the accounting office and the client to the same database. In addition, it is possible to send all important forms to government institutions electronically, alongside rapid exchange of scanned documents with the clients of the accounting office. The asw:dominus system also allows for simplified information exchange between clients and accounting offices. The BIS-ERP-WEB software is based on a database common for clients and bookkeeping agencies, thus establishing a link

between them. It also allows for reviewing and revising the account balance at any time. The e-računi software can be adapted to the needs of the accounting office by allowing clients online access to the data within the program. This way, they are able to use the selected program modules. The Minimax software allows simultaneous use of the same data and documents by both the company and accounting, with data entered once and processed simultaneously in different locations. In a similar way, Billans provides the opportunity to run a business, simultaneously linking it with a bookkeeping agency, i.e., enables simultaneous use of the same data between the company and the accounting agency. Concurrent work can be done by all users within the same database, at any time and at any location. In addition, Billans has a built-in communication center through which it is possible to send and receive SMS, email, fax, and make phone calls.

Out of the total of surveyed applications, five out of nine provide a high level of data security. This includes automatic backups to protect user data, securing data protection through a digital certificate and the use of modern SSL technologies⁴, as well as data security on Telekom's servers. Data security in Minimax is accomplished by protecting data using a digital certificate and modern SSL technologies. Automatic backups for data protection are provided within the e-računi software, while Billans can be accessed only by using a personal password. It also enables a system of access through digital certificates applied for internet banking. Within this software, data are archived once a day. Daily automatic backup of each client's database is done in BIS-ERP-WEB, storing the backups in a secure location. Regular data archiving is a feature of PANTHEON hosting, backups of databases being created at least once a day. The security of the data centers in which data are stored is ensured through a firewall and data encryption.

The same number of examined applications, five out of nine, support the financial reporting process through a powerful system of business and financial analytics. Thus, business analytics is embedded in advanced

versions of PANTHEON which enables reviewing business activities at all company levels, while the accountant has a comprehensive overview of the client's business. Exporting information and analyzing them is simply done via email or MS Excel. Within the framework of AB Soft's program FINALIS (Financial Analysis), an analysis of the financial performance of the business is enabled, which allows users to quickly and easily see the current state and business activities of the company. With this program, it is possible to analyze the financial statements according to the results of periodic calculation and current business results, including balance sheet and income statement, to analyze expenditures and revenues and capital structure and perform ratio analysis, as well as numerous other analyses of financial statements. Through the BIS-ERP-WEB software, it is also possible to carry out a variety of financial and statistical analyses within the supplementary software packages (BI)⁵. The asw:sapiens solution relies upon and qualitatively upgrades asw:dominus. This solution is used to support decision-making through collection, transformation, and analysis of business data. For the purpose of operational and strategic decision-making and tracking daily activities, a wide array of reports is created and then fully distributed across the web; they can also be exported to MS Excel, OpenOffice Calc, and Adobe PDF. For the purpose of advanced reporting and business analysis, a special program segment in the BI class has been developed, called Infosys MATRIX. The reports and analyses are based on the existing database, while MATRIX uses data from a specially organized analytical database for creating reports and analyses. This database is created at the request of the operator (user) and is based on the data from the main database.

Based on the previous analysis, it can be noticed that the percentage of all examined applications in terms of the characteristics and functionality necessary for supporting web financial reporting ranges from 55.56% to 100.00% (Figure 1). This indicates a satisfactory level of quality and

4 Secure Socket Layer, or SSL, is the predominant internet communication security protocol, especially in the case of web services that relate to e-commerce and e-banking.

5 Business intelligence (BI) includes methods and techniques used by businesses to analyze business data [1]. BI technologies give us chronological, up-to-date, and predictive views of the operations of a business. The functions that BI technologies frequently perform include reporting, web analysis, analytics, data mining, process mining, complex event processing, business performance management, benchmarking, text mining, predictive analytics, and prescriptive analytics.

functionality of software solutions in relation to business requirements and financial reporting in contemporary conditions.

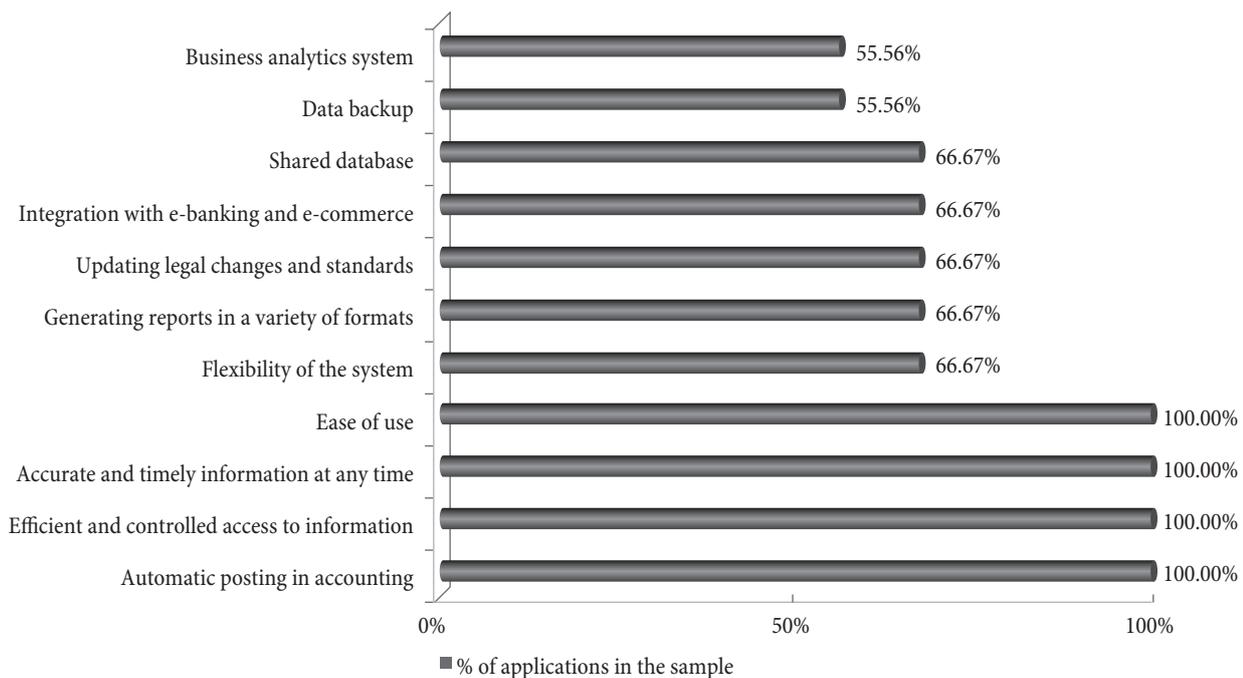
Comparison of Serbian and foreign software packages for supporting web financial reporting

In order to assess the level of quality and functionality of software support to web financial reporting in the Republic of Serbia in relation to the level of those used worldwide, we present below the characteristics of top ten online accounting software solutions used around the world [18]: 1) FreshBooks (FreshBooks, Toronto, Canada), 2) Sage (Sage Software, Inc., Newcastle upon Tyne, UK, England),

3) QuickBooks (Intuit Inc., California, US), 4) Xero (Xero Limited, New Zealand), 5) Zoho (Zoho Corporation, California, US), 6) KashFlow (KashFlow Software Ltd., London, UK), 7) Paychex Online (Paychex, Inc., Penfield, New York, US), 8) FreeAgent (FreeAgent Central, Edinburgh, UK), 9) LessAccounting (Less Everything, Florida, US), 10) Kashoo (Kashoo Cloud Accounting Inc., Vancouver, Canada). The assessment of these global solutions takes into account 1) their accounting and business functions, 2) software implementation and launch, and 3) quality of providing customer support.

By examining their significant features, a comparison of their characteristics with those of the applications from our sample will be carried out in parallel.

Figure 1: Percentage of examined applications that have the given characteristics



Source: [11, p. 225].

Table 3: General characteristics of top ten accounting software products

Accounting software	Type of business and user	Notable feature	Starting price
FreshBooks	services	unlimited invoicing	US\$9.95
Sage	developing	Sage One	US\$10.00
QuickBooks	small and medium-sized	compatibility	US\$10.36
Xero	international small	client portal	US\$9.00
Zoho	small	about 500 integrations	US\$6.30
KashFlow	UK companies	filing VAT returns	US\$5.00
Paychex Online	payroll service	integration of payroll calculation	US\$12.95
FreeAgent	part-time associates	time and cost tracking	US\$24.00
LessAccounting	services	support for work processes	US\$20.00
Kashoo	small	simple expense tracking	US\$12.95

Source: [11, p. 227].

Table 3 provides an overview of general features of these accounting software products according to 1) the types of businesses and activities that the software suits best, 2) the significant features of each software product compared to the others, and 3) the starting price.

Top ten accounting software products were compared using general software ratings, as well as the ratings of 1) accounting and business features, 2) software implementation and launch, and 3) quality of customer support (Table 4).

Below is a comparison and review of the ratings of top ten software products according to the above-mentioned categories, with a parallel comparison of their features with those of the applications this research focused on.

The assessment of accounting and business features and the ease of use of the accounting software is based on the testing of the software in performing routine accounting operations (creating invoices and certain estimates, tracking expenses, paying bills, and creating reports). Ease of use ranges from 90% (e.g. FreshBooks) to 69% (Paychex Online) – Table 5.

Certain conclusions can be drawn based on the comparison between the features of top online accounting

software products and the applications⁶ we researched. We have concluded that the ease of use is a common feature of all tested applications used in Serbian enterprises. This involves performing routine daily accounting tasks (invoicing, expense tracking, report creation, payroll, staff management), with certain applications supporting integration with e-banking and e-commerce systems.

Evaluation of the implementation and launch of a new enterprise accounting system included testing the ease of use of top accounting software products for new users (businesses) based on the extent to which the software vendor provided users with guidance and support in implementing and adjusting the software. Apart from that, the compatibility of the software with the bank, the main dashboard and options for its customization, and the possibility of mobile access were also taken into consideration. The level of ease with which these solutions are used ranges from 95% (Zoho) to 75% (FreeAgent, LessAccounting) – Table 6.

⁶ We compared the characteristics of top ten online accounting software products with the features of online accounting software products (Minimax, e-računi, Billans) from our suite of applications.

Table 4: Overview of online accounting software ratings

No.	Accounting software	Overall rating	Accounting and business features	Implementation and launch	Support and business education
1	FreshBooks	9.83	9.75	9.75	10.00
2	Sage	9.65	9.75	9.38	9.75
3	QuickBooks	9.47	9.75	8.63	9.75
4	Xero	9.40	9.63	9.63	8.75
5	Zoho	9.25	9.75	9.38	8.13
6	KashFlow	7.70	8.25	9.65	4.63
7	Paychex Online	7.52	8.50	8.63	4.50
8	FreeAgent	7.13	7.50	8.00	5.50
9	LessAccounting	7.03	7.50	6.63	6.50
10	Kashoo	6.90	7.25	8.63	4.50

Source: [11, p. 228].

Table 5: Ease of use of the accounting software

Ease of use	Fresh Books	Sage	Quick Books	Xero	Zoho	Kash Flow	Paychex Online	Free Agent	Less Accounting	Kashoo
	90%	90%	90%	85%	90%	80%	69%	80%	75%	70%
Creating invoices, estimates, and quotas	√	√	√	√	√	√	√	√	√	√
Tracking and paying bills	√	√	√	√	√		√	√	√	√
Sales and order management	√	√	√	√	√	√	√		√	√
Item and service management	√	√	√	√	√	√	√	√		
Time and expense tracking	√	√	√	√	√	√	√	√	√	√
E-commerce and online sales	√	√	√	√	√	√			√	
Salary calculation and human resources	√	√	√	√	√	√	√			√

Source: [11, p. 229].

Some conclusions can be drawn from the comparison of the software features given in the previous table with the features of the solutions that were the subject matter of the present research. Certain applications explored in the present research enable integration with e-banking and e-commerce systems, import of data from other applications (Minimax, Billans), as well as the possibility of mobile access (Minimax, e-računi, Billans). When considering the customizability of the dashboard, we noticed that this is a feature of only some solutions (FreshBooks, Xero, KashFlow). The applications examined in the present research also have limitations in terms of dashboard customizability, whereas most of them provide good data transparency and adequate support from the manufacturer regarding the availability of instructions and software settings.

Top ten software solutions were also compared according to the assessment of customer support quality (from 100% - FreshBooks to 60% - KashFlow) – Table 7. The ratings are based on providing customer support directly over the phone and through online support. The best solutions considered in this research provide fast and useful customer service and updated online information. The following aspects were assessed in terms of support quality: 1) free access to the software by an accountant or other authorized representative, 2) continuous business education, 3) active user communities and 4) updated video content.

When we consider the quality of support that the software manufacturers provide to our users, the tested applications lead us to the following conclusions. The provided customer support is of high quality. For certain applications (e.g., Minimax), the support system is integrated into the program, while users are also provided with phone or email support, as well as instructions and video content to help them use the program. The users of the Billans app are provided not only with help and support through the Billans partner network, but also with direct paid support and online training and free telephone and online support related to the use of the program (10-minute assistance). To master working in the e-računi program, online guidance, telephone support, and remote support are available to users⁷.

Based on the comparative analysis of Serbian and foreign software packages, we can conclude that the features and functionalities supporting web financial reporting match.

Conclusion

Companies in the Republic of Serbia have various software solutions for web financial reporting available, from modern ERP solutions to online bookkeeping software, primarily intended for managing business records and compiling

⁷ With the help of remote support software, the operator is given access to the user's computer via the internet.

Table 6: Ease of use of the accounting software for new users (businesses)

Ease of use for new businesses (users)	Fresh Books	Sage	Quick Books	Xero	Zoho	Kash Flow	Paychex Online	Free Agent	Less Accounting	Kashoo
	85%	95%	85%	80%	95%	80%	85%	75%	75%	85%
Banking transaction import	√	√	√	√	√	√	√	√	√	√
Dashboard customization	√			√		√				
Mobile access	√	√	√	√	√	√	√	√		√

Source: [11, p. 231].

Table 7: Quality of support provided

Support quality	Fresh Books	Sage	Quick Books	Xero	Zoho	Kash Flow	Paychex Online	Free Agent	Less Accounting	Kashoo
	100%	95%	95%	80%	85%	60%	75%	75%	75%	75%
Free access to the software by an accountant	√	√	√	√	√	√		√	√	
Continuous business education	√	√	√	√	√				√	
Active user community	√	√	√	√	√					
Updated video content	√	√	√	√						

Source: [11, p. 233].

financial statements. The results of the survey indicate that there is adequate support in terms of the quality and functionality of web financial reporting applications in the practice of domestic enterprises, in line with the demands of modern business and management. The conclusion is that when it comes to significant characteristics and functionalities needed to support this type of reporting, the percentage of the tested applications ranges from 55.56% to 100.00%. When it comes to the user-friendly feature, the basic advantages of their application are the ease of their use, maintenance, updating and upgrading and effective support in working with the program. What is characteristic of 100% of the examined applications is automatic document processing, i.e., automatic creation of financial statements and automatic posting in accounting. In addition, all examined software solutions 1) produce accurate and timely information at all times, in accordance with the needs of accountancy, management, and other users; 2) are characterized by the system's ease of use; and 3) provide controlled and efficient access to financial and accounting information. Timely information provided at all times is an especially significant feature in the management's decision-making process, while simple data entry reduces the possibility of occurrence of human errors, which improves the financial reporting process. Business control is achieved by allowing data to be accessed at any time and from any location, while quick access to data contributes to the simplification of business processes in the company. The results also show that two-thirds of the examined applications are generally flexible, i.e., adaptable to the needs of all users, especially the management. The flexibility of applications improves business efficiency, which is the basis for the development and expansion of the company. Generating reports in a variety of formats is also a feature of 66.67% of the total surveyed applications. They allow reports to be generated in PDF, MS Excel, HTML, and XML formats and enable graphical representation of reports. The same percentage of applications provide 1) up-to-date billing data through automatic updating of legal changes and standards in the program; 2) support for the connection with e-banking and e-commerce systems; and 3) the possibility of a simplified exchange of data between clients and accounting agencies.

The characteristic of 55.56% of the applications examined is a high level of data security, while the same percentage of applications also include a business analytics system, which enables business activities to be reviewed at all levels in the company.

The results of the research, based on the comparative analysis of Serbian and foreign software packages in terms of supporting web financial reporting, show that there is an adequate level of quality in the functionality of the solutions used in the practice of Serbian companies when compared to those used worldwide. The conclusion is based on the fact that all tested applications used in the practice of our companies are characterized by ease of use in performing daily accounting tasks. In addition, they provide integration with e-banking and e-commerce systems and the possibility to access and import data from other applications. The results point to some limitations regarding dashboard adjustability in both Serbian and foreign software solutions. Compared to foreign software packages, the conclusion is that most of the examined applications ensure good transparency of data, which are concentrated in one place, and that software vendors provide high-quality software support.

Bearing in mind the continuous progress of IT, software solutions in the domain of web financial reporting need to be constantly developed. Choosing an adequate software solution in this domain requires consideration of all previously analyzed features and functionalities that a given solution provides, taking into account the costs of system acquisition, implementation, and maintenance, while the final choice will depend primarily on the specific needs of each company.

References

1. Armbrust, M., Fox, A., Griffith, R., Joseph, A. D., Katz, R., Konwinski, A., & Zaharia, M. (2010). A view of cloud computing. *Communications of the ACM*, 53(4), 50-58.
2. ASW - asw:dominus. (2016). Retrieved from <http://www.asw.eu/asw/sr/products/dominus.html>.
3. Billans-e-poslovanje. (2016). Retrieved from <http://www.billans.net/>.
4. BIS-ERP Web. (2016). Retrieved from https://www.bis-erp.com/BISWEB_WEB/L36/login-page.awp.

5. Boritz, J. E. (1999). *The accounting curriculum and IT*. Retrieved from <http://www.ifac.org>.
6. Poslovno informacijski sistem PANTHEON. (2016). Retrieved from <http://www.datalab.rs/>.
7. Digit softverska rešenja. (2016). Retrieved from <http://www.digit.co.rs/fis.php>.
8. e-računi online poslovni programi. (2016). Retrieved from <http://srbija.e-racuni.com/hrs/WikiPage?lang=Serbian>.
9. Informacioni sistemi AbSoft. (2016). Retrieved from <http://www.absoft.rs/>.
10. Infosys preduzeće za projektovanje informacionih sistema. (2016). Retrieved from <http://www.infosys.rs/>.
11. Janačković, T. (2016). *Razvoj informacionog sistema za finansijsko izveštavanje baziranog na veb tehnologiji*. [Doktorska disertacija. Univerzitet u Nišu, Ekonomski fakultet].
12. Mell, P., & Grance, T. (2011). *The NIST definition of cloud computing: Recommendations of the National Institute of Standards and Technology*. Retrieved from <http://csrc.nist.gov/publications/nistpubs/800-145/SP800-145.pdf>.
13. Minimax. (2016). Retrieved from <http://www.saop.rs/minimax/prezentacija/>.
14. Olivier, H. (2000). Challenges facing the accountancy profession. *European Accounting Review*, 9(4), 603–624.
15. Savić, M., & Janković, S. (2015). Primena cloud computing-a u računovodstvu. *Synthesis 2015, International Scientific Conference of IT and Business-Related Research*, 719-722.
16. Sürmen, Y., & Daştan, A. (2007). The relationship between the historical development of accounting information system and its applications and information technologies. *The Balkan Countries 1st International Conference on Accounting and Auditing*. BCAA, Edirne, Turkey.
17. Sutton, S. (2000). The changing face of accounting in an information technology dominated world. *International Journal of Accounting Information Systems*, 1, 1-8.
18. Top ten reviews. (2016). Accounting Software Reviews: Reviews & omparisons. Retrieved from <http://accounting-software-review.toptenreviews.com/>.
19. Xiao, Z., Sangster, A., & Dodgson, J. H. (1997). The relationship between information technology and corporate financial reporting. *Information Technology and People*, 10(1), 11-30.



Tanja Janačković

is Professor at the Higher Business School of Professional Studies in Leskovac, specializing in the scientific field of accounting and finance. Within undergraduate professional studies, she teaches the following courses: Basics of Accounting, Financial Management and Accounting, Financial Control and Audit and Financial Management, and Corporate Finance within postgraduate specialist studies. She graduated in 2009 from the Faculty of Economics, University of Niš, where she also earned her master's degree in 2013 and Ph.D. in 2016. She authored many scientific papers published and presented in domestic and international journals and conferences.



Slavoljub Milovanović

is Professor at the Faculty of Economics, University of Niš. He acquired a bachelor's degree in Economics at the Faculty of Economics, University of Niš, after which he finished master's studies at the Faculty of Economics, University of Belgrade, module Information Systems and Cybernetics. He received his Ph.D. in Management Information Systems from the Faculty of Economics, University of Niš. His research interests include strategic management and use of information systems (IS), knowledge management, electronic business and shift in the role of IS. At the Faculty of Economics, University of Niš, Mr. Milovanović teaches Informatics, Business Information Systems and Electronic Business.