



## Asian Journal of Management and Commerce

E-ISSN: 2708-4523  
P-ISSN: 2708-4515  
AJMC 2024; 5(2): 01-07  
© 2024 AJMC  
[www.allcommercejournal.com](http://www.allcommercejournal.com)  
Received: 03-05-2024  
Accepted: 06-06-2024

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# Evaluating the effectiveness of digital accounting applications for small and medium enterprises: A user-centric approach

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**DOI:** <https://doi.org/10.22271/27084515.2024.v5.i2a.323>

### Abstract

Small and Medium Enterprises rely on digital accounting applications to manage their financial operations and remain competitive in their particular industries. These applications are available in numerous forms with diverse features, from free to paid versions. However, whether these applications genuinely suit their users' needs remain ambiguous. The study aims to evaluate the effectiveness of these applications by assessing user ratings and reviews or feedback. The study evaluates ten popular digital accounting applications from the Play Store of Android-based mobile devices and other online platforms, providing reviews and feedback on these applications. The study's findings indicate that "myBillBook" is ideal for accounting needs, with high user ratings and positive feedback. Another top contender is "Zoho Books- GST Accounting," known for its excellent features, albeit at a higher cost for the paid version, while "Xero Accounting" lags due to user dissatisfaction.

**Keywords:** Digital accounting applications, technology, small and medium enterprises, rating, feedback, reviews

### Introduction

The Internet and technological innovation drive a significant structural transformation in the global economy, commonly called the "Internet Economy" (Rezabakhsh *et al.*, 2006) <sup>[46]</sup>. This transformation affects all sectors, and businesses, regardless of size, rely heavily on technology for accurate information and effective management (Hendrickson, 2003) <sup>[19]</sup>. Small and medium-sized enterprises (SMEs) are essential for a country's social and economic development (Lawrence, 2009) <sup>[28]</sup>, and in India, they contribute 8% of the GDP (Kumar, 2017) <sup>[27]</sup>. SMEs face challenges due to domestic and global economic issues and government discrepancies (Abdullah *et al.*, 2009) <sup>[1]</sup>. To compete in the increasingly complex and competitive business environment, businesses must continuously adapt and innovate by deploying innovative technology and management principles. Information and communication technology (ICT) is indispensable for efficiently managing any organization's transactions and offering commercial services to its clients (Huang & Rust, 2013) <sup>[22]</sup>. It is a substantial source of competitive advantage for SMEs (Adeniran & Johnston, 2016) <sup>[3]</sup>. Technological progressions in digital accounting applications are shifting how accounting tasks and financial transactions are executed and recorded. Accounting professionals face new challenges due to digital services and new technology.

In recent years, digital accounting systems have grown in popularity among SMEs. These systems provide various tools and features that may help organizations streamline their accounting procedures and enhance their financial management. Some of the most important advantages of digital accounting solutions for SMEs include higher efficiency, cost savings, and improved data security (Attaran & Woods, 2019) <sup>[11]</sup>. Increased efficiency is one of the primary advantages of digital accounting solutions (Rindasu, 2017) <sup>[48]</sup>. Several laborious and time-consuming processes connected with traditional accounting procedures, such as data input and record-keeping, are automated by these platforms (Ahmad *et al.*, 2022) <sup>[4]</sup>. Automating these activities and using digital accounting tools may help businesses save time and decrease the risk of mistakes. Furthermore, many digital accounting solutions have capabilities like real-time reporting (Dai & Vasarhelyi, 2017) <sup>[15]</sup>, which may give firms up-

to-date financial information that can be utilized to make better business choices. Another significant advantage of digital accounting tools for SMEs is cost reduction (Bagale *et al.*, 2021) <sup>[12]</sup>. Conventional accounting procedures may be rather costly, especially for small organizations. In contrast, digital accounting tools are often more economical and accessible to SMEs (Shofawati, 2019) <sup>[51]</sup>. Furthermore, many digital accounting platforms include a variety of price alternatives (Hosseini, 2022) <sup>[20]</sup>, which can assist organizations in selecting the plan that best matches their budget and demands. Apart from enhanced productivity and cost savings, digital accounting tools may assist Businesses in improving data security (Attaran & Woods, 2019) <sup>[11]</sup>. To safeguard sensitive financial information, several digital accounting platforms employ secure servers and encryption (Achar, 2018) <sup>[2]</sup>. Furthermore, many systems provide multi-factor authentication and other security measures to prevent unwanted access to financial data (Ali *et al.*, 2021) <sup>[6]</sup>.

Despite the numerous advantages of digital accounting solutions, SMEs may encounter specific difficulties while adopting them. One of the most challenging obstacles is the learning curve of utilizing new software (Bento & Bento, 2011) <sup>[13]</sup>. Many SMBs may lack the resources or experience to learn digital accounting tools quickly. Furthermore, some Businesses may hesitate to use digital accounting systems due to data security concerns or the cost of moving to a new system (Seethamraju, 2015) <sup>[50]</sup>. Another issue that SMEs may have when utilizing digital accounting solutions is the danger of data breaches or other security events (Watah *et al.*, 2018) <sup>[56]</sup>. While digital accounting platforms can increase data security for firms, they can also be exposed to cyber-attacks or other security breaches (Suzen, 2020) <sup>[53]</sup>. Businesses should be aware of the hazards connected with digital accounting systems and take precautions to safeguard their financial data.

Digital accounting systems, including increased productivity, cost savings, and considerable data security, may benefit SMEs. Besides, SMEs should be conscious of the challenges accompanying these platforms, mainly the learning curve and the prospect of data breaches. Knowing the benefits and limitations of digital accounting platforms enables SMEs to make more informed decisions about whether and how to employ them to improve their financial management.

SMEs increasingly turn to digital accounting solutions to help them streamline their financial procedures and increase productivity. There are several prominent digital accounting software programmes on the market today. The most prominent worldwide are Xero, Zoho Books, Accounting Bookkeeping, and others. In India, prominent digital accounting applications are Khatabook, Vyapar, and myBillBook. These programmes are developed for small businesses and contain features like invoicing, expense tracking, inventory management, time tracking, payment reminders, financial reports, bank reconciliation, and online or real-time payments. While evaluating popular digital accounting platforms, examine their features, simplicity of use, and overall cost-benefit.

Generally, each digital accounting platform offers advantages and disadvantages. Businesses should carefully assess their unique objectives and budget when choosing which application to utilize. It is also worth mentioning that most of these apps provide a free trial period, allowing businesses to test them before committing to a subscription.

However, it is uncertain how practical these applications are in serving the demands of businesses and whether the investment is worthwhile. In this study, a user rating analysis has been performed to assess the effectiveness of digital accounting software for SMEs. We have examined the features and functioning of major digital accounting applications and SME users' satisfaction and perceived advantages.

## Review of literature

Digitalization in accounting has become a prevalent research topic in recent years as technology advances and changes how accounting practices are conducted (Bhimani & Willcocks, 2014) <sup>[14]</sup>. The influence of digitization on financial reporting and analysis is one of the primary research topics in digital accounting. According to the studies, digital tools and systems can increase the accuracy and efficiency of financial reporting and analysis and give real-time data and insights to assist firms in better decision-making (Al-Htaybat & von Alberti-Alhtaybat, 2017; Izzo *et al.*, 2021; Pan & Seow, 2016) <sup>[5, 23, 39]</sup>. Cloud-based accounting software is yet another subject in the study of digital accounting. Cloud-based accounting software has been shown in studies to boost accounting system flexibility and scalability, as well as to provide more accessibility to financial data and insights (Ma *et al.*, 2021; Yathiraju, 2022; Eldalabeeh *et al.*, 2021) <sup>[33, 60, 17]</sup>. The literature also examines the advantages and disadvantages of using digital accounting systems. Many studies have shown that digital accounting offers numerous benefits, including enhanced accuracy and effectiveness (Bagale *et al.*, 2021; Seethamraju, 2015) <sup>[12, 50]</sup>. Nevertheless, challenges such as data privacy and security risks and implementation costs may arise (Fuller & Markelevich, 2020; Singh *et al.*, 2016) <sup>[18, 52]</sup>. Data privacy and security are also essential aspects of digital accounting. According to several studies, digital accounting software is susceptible to cyber-attacks and data breaches, and firms must ensure the security of their data (Achar, 2018; Woldemichael, 2019) <sup>[2, 58]</sup>.

In addition to the general digitalization in accounting, some studies focus on specific areas such as external auditing (Desplebin *et al.*, 2021) <sup>[16]</sup>, small and medium enterprises (Lutfi *et al.*, 2022) <sup>[32]</sup>, tax compliance (Wadesango *et al.*, 2018) <sup>[55]</sup>, fraud detection (Kruskopf *et al.*, 2020), financial planning (Rikhardsson & Yigitbasoglu, 2018) <sup>[47]</sup>, the role of accountants (Knudsen, 2020) <sup>[24]</sup>, the role of CFO (Andreassen, 2020) <sup>[7]</sup>, the role of credit and collections (Kokina & Blanchette, 2019) <sup>[25]</sup>, etc. Another vital area of study is the use of digital accounting in SMEs. Studies have shown that SMEs can benefit from improved efficiency and accuracy in digital accounting (Pan & Lee, 2020) <sup>[38]</sup>. Nonetheless, there can also be challenges, such as the cost of implementation and the unavailability of technical expertise (Lois *et al.*, 2020) <sup>[31]</sup>. The literature also talks about the impact of digitalization on the prospect of the accounting profession. Studies have validated that the roles and responsibilities of accounting professionals have transformed due to digitalization, and digital accounting offers probable benefits and drawbacks. It is also confirmed that the efficiency and accuracy of fraud detection can be improved by implementing it (Pinto & Sobreiro, 2022; Roszkowska, 2020) <sup>[41, 49]</sup>.

Digital accounting has substantially impacted the accounting profession (Rindasu, 2017) <sup>[48]</sup>. Accounting is

now more automated and works with artificial intelligence with the coming up of digital technology (Lee & Tajudeen, 2020) <sup>[29]</sup>. These advancements impact the job of accountants (Mohammad *et al.*, 2020) <sup>[34]</sup>, with many envisaging that the profession will become increasingly directed toward strategic and consulting services more willingly than conventional compliance and record-keeping tasks (Howieson, 2003) <sup>[21]</sup>. According to the studies, digital accounting favors small firms and leads to improved financial reporting (Xiao *et al.*, 2005) <sup>[59]</sup>. However, digital accounting has certain drawbacks, such as the requirement for sufficient training (Kruskopf *et al.*, 2020) <sup>[26]</sup> and the possibility of greater security and privacy threats (Lichtenstein & Williamson, 2006) <sup>[30]</sup>.

According to studies, digital accounting systems can improve the performance of SMEs. Phornlaphatrachakorn & NA Kalasindhu (2021) <sup>[40]</sup>, for example, revealed that digital accounting may enhance SMEs' productivity and financial reporting. Similarly, Rassool & Dissanayake (2019) <sup>[44]</sup> and Ulas (2019) <sup>[54]</sup> found that digital accounting can assist SMEs in competing more effectively in the market. These studies, however, reveal several problems related to SMEs' adoption of digital accounting (Rawashdeh & Rawashdeh, 2023; Prause, 2019) <sup>[45, 42]</sup>. Olatokun & Kebonye (2010) <sup>[35]</sup>, for example, mentioned that a lack of technical expertise and resources might stymie adoption. Apulu *et al.* (2011) <sup>[18]</sup> and Ashrafi & Murtaza (2008) <sup>[10]</sup> also revealed that cost might be a substantial barrier to adoption. According to these findings, SMEs should analyze the benefits and difficulties of digital accounting adoption and devise strategies to overcome the obstacles.

### Statement of problem

Individuals, retailers, and SMEs widely use digital accounting applications. Previous studies focused on the benefits and challenges of Information Technology (IT), cloud computing, and digital accounting applications. They focused on how IT can be used for accounting purposes and how digital accounting applications can help. There are numerous digital accounting applications available for users whose features vary from each other. Individuals and organizations must check these applications and use those that fulfill their requirements. The current study focuses on

the efficiency and features of these applications based on users' ratings and feedback. The purpose is to highlight the best application available that the user can consider if it fulfills their requirement.

### Objectives of the study

1. To assess the effectiveness of digital accounting applications in meeting the accounting needs of SMEs based on user ratings.
2. To analyze the perceived strengths and weaknesses of digital accounting applications for SMEs as indicated in user feedback and reviews.

### Research methodology

This study adopts an exploratory approach to assess the effectiveness of digital accounting applications for SMEs from a user-centric perspective, incorporating both quantitative ratings and qualitative feedback.

1. **Data Collection:** Qualitative and quantitative data collection methods are employed. Data collection relies exclusively on existing user-generated content, which includes user ratings and written feedback or reviews of digital accounting applications. Data was retrieved from the Play Store of Android-based mobile devices and various other websites providing reviews and feedback on any application. Data regarding details of the selected applications was retrieved on 25<sup>th</sup> October, 2023.
2. **Data Analysis:** Data analysis involves the use of statistical tools, such as percentage and mean. Data analysis is primarily focused on the aggregation and interpretation of user-generated content. User ratings are quantitatively analyzed, while user feedback and reviews are qualitatively assessed to understand the strengths and weaknesses of digital accounting applications. Users' feedback is rated on a scale of 1 to 4 to quantify their level of satisfaction with specific application features.
3. **Application Selection:** The study focuses on ten popular digital accounting applications predominantly installed on Android-powered mobile devices and other electronic platforms. The accounting applications surveyed in this study are listed in Table 1.

**Table 1:** Digital Accounting Application Studied

S. No.	Digital Accounting Applications	Developer	Developer Country	Capacity (MB)	Released Date	Downloads
1.	Khatobook	ADJ Utility Apps Pvt Ltd	India	21.60	26-Oct-2016	5,00,00,000+
2.	Vyapar- Billing App GST Invoice Maker	Vyapar Tech Solutions	India	28.23	10-Dec-2015	1,00,00,000+
3.	myBillBook Invoice Billing App	FloBiz	India	30.41	26-Feb-2020	50,00,000+
4.	Xero Accounting	Xero Limited	New Zealand	24.05	1-Oct-2012	10,00,000+
5.	Account Book- Money Manager	Defter	Istanbul	4.21	30-Dec-2014	10,00,000+
6.	CashBook: Biz Expense Manager	Ekeekaran Inc	India	17.46	2-Aug-2020	10,00,000+
7.	Zoho Books- GST Accounting	Zoho Corporation	USA	11.36	3-Jan-2014	10,00,000+
8.	Book Keeper- GST Invoice Billing Inventory	Just Apps Pvt. Ltd.	India	30.06	16-Dec-2012	10,00,000+
9.	Accounting Bookkeeping	TackTile Systems Private Limited	India	11.87	16-Aug-2019	10,00,000+
10.	Golden Business Accounting	Golden-Accounting	Germany	18.29	16-Jun-2017	5,00,000+

Source: Google Play Store

The study looks into the uses and features of digital accounting apps based on user feedback. The survey findings were separated into two tables. The users' satisfaction is shown in Table 2, while Table 3 assigns a rating value of 1-4 to each mobile app feature.

### Results and Discussion

The mobile accounting app is a financial transaction record application that can be loaded on a smartphone and used to conduct accounting duties such as recording company transactions and providing financial reports. It enables

micro and small businesses to save financial transactions and generate financial reports despite a lack of financial accounting skills. The study focused on digital or mobile accounting applications.

According to Table 1, the Khatabook app is most prominent in India, considering its number of downloads, followed by the Vyapar and myBillBook apps. In terms of the size of the application, the myBillBook app is the largest, closely followed by the Book Keeper- GST Invoice Billing Inventory app.

Table 2 shows the customer satisfaction for each application as represented by the star rating. According to Table 2, the “myBillBook” application has the highest customer

satisfaction among accounting application users at 85.71% (5-star rating), followed by “Book Keeper- GST Invoice Billing Inventory” at 82.50% (5-star rating). In comparison, “Xero Accounting Software” has the lowest degree of satisfaction, with 29.79% (1-star rating). The “myBillBook” application is free for most of its part. Only a handful of premium features, such as the GSTR report, fall under the paid category. However, if we talk about the number of downloads or users, the “Khatabook” application is the most prominent in India, with customer satisfaction of 81.47% (5-star rating). The “Golden Business Accounting” application has the lowest number of users and has 13.77% (1-star rating), which means users are not much satisfied with this.

**Table 2:** Customers’ Satisfaction Level

S. No.	Digital Accounting Applications	No. of Ratings	Percentage of Rating	No. of Ratings	Percentage of Rating	No. of Ratings	Percentage of Rating	No. of Ratings	Percentage of Rating	No. of Ratings	Percentage of Rating
		5 Star		4 Star		3 Star		2 Star		1 Star	
1.	Khatabook	4,20,095	81.47%	38,031	7.38%	16,024	3.11%	9,164	1.78%	32,340	6.27%
2.	Vyapar- Billing App GST Invoice Maker	79,264	80.48%	8,092	8.22%	2,802	2.85%	1,547	1.57%	6,781	6.89%
3.	myBillBook Invoice Billing App	1,01,162	85.71%	7,558	6.40%	2,163	1.83%	1,126	0.95%	6,022	5.10%
4.	Xero Accounting	5,178	47.52%	541	4.96%	1,082	9.93%	850	7.80%	3,246	29.79%
5.	Account Book- Money Manager	18,167	76.19%	3,288	13.79%	398	1.67%	597	2.50%	1,395	5.85%
6.	CashBook: Biz Expense Manager	1,11,487	71.84%	25,982	16.74%	8,474	5.46%	2,676	1.72%	6,563	4.23%
7.	Zoho Books- GST Accounting	10,194	77.73%	1,697	12.94%	531	4.05%	244	1.86%	449	3.42%
8.	Book Keeper- GST Invoice Billing Inventory	9,375	82.50%	685	6.03%	214	1.88%	169	1.49%	920	8.10%
9.	Accounting Bookkeeping	2,672	65.59%	668	16.40%	108	2.65%	108	2.65%	518	12.71%
10.	Golden Business Accounting	1,544	66.01%	203	8.68%	237	10.13%	33	1.41%	322	13.77%

Source: Google Play Store

**Table 3:** Application Features Rating

S. No.	Features	Khatabook	Vyapar- Billing App GST Invoice Maker	myBillBook Invoice Billing App	Xero Accounting	Account Book- Money Manager	CashBook: Biz Expense Manager	Zoho Books- GST Accounting	Book Keeper- GST Invoice Billing Inventory	Accounting Bookkeeping	Golden Business Accounting
1.	Easy to use	4	4	4	4	3	4	4	4	3	3
2.	Low cost	4	3	3	2	3	4	2	3	3	2
3.	Time-saving	4	3	4	2	3	3	4	4	3	3
4.	Mobile access and features	4	3	4	3	3	3	3	3	4	4
5.	Accountant accessibility	3	3	4	2	4	4	4	3	3	4
6.	Reporting capabilities	4	3	4	1	3	3	4	3	3	4
7.	Integration with third-party apps	2	3	3	3	2	2	2	3	2	2
8.	No limitation on no. of customers, transactions, invoices	4	4	4	3	4	4	4	4	3	2
9.	Applicable to SMEs	4	4	4	4	3	4	4	4	3	2
10.	Inventory Management	3	3	3	1	3	2	3	4	4	3
11.	Invoicing	4	4	4	4	4	4	4	4	4	4
12.	Added services: credit card processing, tax prep, payroll	2	3	3	2	3	3	4	2	3	4
13.	Customer service	3	3	3	3	3	3	4	3	3	2
14.	Capacity	4	3	3	3	4	3	4	3	3	3
15.	Not contains advertisement	3	4	4	4	4	4	4	4	4	4
	Total	52	50	54	41	49	50	54	52	48	46

Source: Author’s Compilation

Table 3 shows the analysis of the features of the applications, which was based on customer reviews and feedback. A rating score of 1-4 was given to each feature of the accounting application. The total score of “myBillBook” and “Zoho Books- GST Accounting” was the highest at 54 for both applications, meaning users preferred it. The second highest score (52) is for “Khatabook” and “Book Keeper- GST Invoice Billing Inventory,” which is the next preference of users. “Xero Accounting” scored lowest (41), meaning it does not fulfill the users' requirements. “Zoho Books- GST Accounting,” despite being costly, provides good and additional features and meets the users' needs because most of its other features received a 4-rating score. On comparing the two tables (Table 2 and Table 3), we found that in terms of both user-centric application rating and features, “myBillBook” stands best among others, and the accounting community can consider it for fulfilling their accounting requirements. “Xero Accounting” should not be considered by the users as its features are not liked.

### Conclusion and implication

As the digital landscape keeps evolving (Omarini, 2022; Wittenberg *et al.*, 2018) <sup>[36, 57]</sup>, SMES must acknowledge the value of adapting and incorporating innovative accounting technologies (Pu *et al.*, 2021; Ashiru *et al.*, 2023) <sup>[43, 9]</sup>. The study analyzed the efficacy of digital accounting applications based on ratings and reviews by exploring their features based on users' feedback. User-driven insights are crucial to improving the usability, functionality, and customization of digital accounting solutions, which ultimately helps SMEs make better decisions and be more productive. The study's findings reveal that “myBillBook” has the highest rating, and its features got positive user reviews. Therefore, the accounting community, SMEs, and small retailers can consider this application for their accounting needs. The other best alternative is “Zoho Books- GST Accounting” as the users like its features; the only drawback is that it is costlier if going for a paid subscription. It also provides several other features that are lacking in other applications. The next best alternatives are “Khatabook” and “Book Keeper- GST Invoice Billing Inventory,” as they are the most prominent among users, as seen from the number of downloads and ratings. Also, it meets the needs of the users to a great extent. “Xero Accounting” should not be considered as the users do not like its features, as evidenced by its ratings. Although the “Vyapar- Billing App GST Invoice Maker” is prominent among users, as witnessed from the number of downloads, it lacks some features. Their unique demands and preferences will determine the most appropriate application for the user. If they want an application that is simple to use, inexpensive, and has all the necessary features, any of these four applications would be a fantastic choice. If, on the other hand, they are seeking a specific feature, such as mobile access or additional services, they should select the application that best suits their needs and expectations. The results of this study are meant to serve as a reference for business managers, government agencies, and providers of digital accounting platforms as they develop plans and policies to utilize digital accounting through the efficiency of enterprises and obtain its benefits. The study emphasizes the value of encouraging collaboration between software developers and end users since it may result in the creation of accounting solutions that are more user-centric and better

meet the unique requirements and preferences of SMEs.

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