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THE IMPACT OF DIGITAL PROCEDURES IN ACCOUNTING AND AUDITING ON TAX COLLECTION EFFICIENCY

Анотація. *У минулому аудитори переглядали фінансові звіти та інші документи наприкінці звітного періоду як частину своєї звичайної аудиторської діяльності. Тим не менш, через доступність даних у реальному часі та складних методів моніторингу в епоху цифрових технологій аудитори можуть проводити безперервний аудит. Постійний аудит дозволяє аудиторам виявляти порушення або можливі небезпеки, коли вони виникають, шляхом постійного моніторингу фінансових операцій. Використовуючи технологію, аудитори можуть покращити внутрішній контроль, надати оперативний зворотний зв'язок і завчасно зменшити ризики. Таким чином, це дослідження спрямоване на вивчення цифрових процедур обліку та аудиту ефективності збору податків. У дослідженні використовується кількісний підхід шляхом опитування 150 осіб, які працюють у сфері податкових інспекторів Податкового управління Оману. Це дослідження використовує Smart-PLS як статистичні інструменти для аналізу своїх гіпотез. Результати продемонстрували, що цифрові процедури бухгалтерського обліку та аудиту мають значний позитивний вплив на ефективність збору податків у податковій службі Оману. Теоретична основа цієї роботи може бути корисною для розуміння цифрових факторів зростання активного збору податків. Для аудиторів цифрова ера створила цілий світ можливостей, які дозволяють їм надавати своїм клієнтам більшу ефективність, точність і цінність. Завдяки постійному аудиту та аналізу даних аудитори можуть отримати цінну інформацію, мінімізувати ризики та оптимізувати свої процедури. Однак аудитори повинні бути в курсі цих технічних розробок, постійно оновлювати свої знання та стежити за зміною цифрового ландшафту. Новизна поточної роботи полягає в дослідженні зв'язку між аудитом і цифровою трансформацією, розглядаючи використання різних факторів та їх внесок у посилення податкових органів. Він також підкреслює роль аналізу даних у режимі реального часу в покращенні здатності аудиторів приймати рішення. Це дослідження особливо унікальне в контексті країн, що розвиваються, особливо в Перській затоці, і зокрема в Омані.*
Ключові слова: *цифровий бухгалтерський облік, аудит, оподаткування, технології.*

JEL Classification: H83, M4

Absztrakt.. Korábban a könyvvizsgálók szokásos könyvvizsgálati tevékenységük részeként a beszámolási időszak végén áttekintették a pénzügyi kimutatásokat és egyéb dokumentumokat. A digitális korban elérhető valós idejű adatokkal és kifinomult monitorozási technikákkal azonban a könyvvizsgálók folyamatos auditálást végezhetnek. A folyamatos könyvvizsgálat lehetővé teszi a könyvvizsgálók számára, hogy a pénzügyi tranzakciók folyamatos nyomon követésével észleljék a jogsértéseket vagy potenciális fenyegetéseket. A technológia használatával a könyvvizsgálók javíthatják a belső ellenőrzéseket, azonnali visszajelzést adhatnak, és korán csökkenthetik a kockázatokat. Ezért jelen kutatás célja a digitális számviteli eljárások tanulmányozása és az adóbeszedés hatékonyságának ellenőrzése. A tanulmány kvantitatív megközelítést alkalmaz 150, az ománi Adószolgálatnál

adóellenőrök területén dolgozó személy megkérdezésével. Ez a tanulmány a Smart-PLS-t statisztikai eszközként használja hipotéziseinek elemzéséhez. Az eredmények azt mutatták, hogy a digitális számviteli és könyvvizsgálati eljárások jelentős pozitív hatással vannak az Omán Adószolgálat adóbeszedési hatékonyságára. Ennek a munkának az elméleti kerete hasznos lehet az aktív adóbeszedés növekedésének digitális mozgatórugóinak megértésében. A könyvvizsgálók számára a digitális kor olyan lehetőségek világát teremtette meg, amelyek lehetővé teszik számukra, hogy nagyobb hatékonyságot, pontosságot és értéket biztosítsanak ügyfeleiknek. A folyamatos könyvvizsgálat és adatelemzés révén az auditorok értékes információkhoz juthatnak, minimalizálhatják a kockázatokat és optimalizálhatják eljárásaikat. A könyvvizsgálóknak azonban lépést kell tartaniuk ezekkel a technikai fejlesztésekkel, folyamatosan frissíteniük kell tudásukat, és figyelemmel kell kísérniük a változó digitális tájat. A munka újdonsága az ellenőrzés és a digitális átalakulás kapcsolatának vizsgálatában rejlik, figyelembe véve a különböző tényezők felhasználását és azok hozzájárulását az adóhatóság megerősítéséhez. A tanulmány arra is rávilágít, hogy a valós idejű adatelemzés milyen szerepet játszik a könyvvizsgálók döntéshozatali képességének javításában. Ez a tanulmány egyedülálló a fejlődő országok kontextusában, különösen a Perzsa-öbölben és Ománban.

Kulcsszavak: digitális számvitel, könyvvizsgálat, adózás, technológiák.

Abstract. In the past, auditors would review financial statements and other documents at the conclusion of an accounting period as part of their routine auditing activity. Nonetheless, because of the availability of real-time data and sophisticated monitoring methods in the digital age, auditors may do continuous auditing. Continuous auditing allows auditors to spot irregularities or possible hazards as they arise by continuously monitoring financial transactions. Using technology, auditors can improve internal controls, give prompt feedback, and proactively reduce risks. Thus, this study aims at examining the digital procedures accounting and auditing on tax collection efficiency. The study uses the quantitative approach through survey of 150 persons work in the field of tax inspectors of Oman Tax Authority. This study uses Smart-PLS as statistical instruments to analyses its hypotheses. The results demonstrated digital procedures accounting and auditing has a significant and positive influence on tax collection efficiency in Tax Authority in Oman. The theoretical framework of this work could be helpful to understand digital factors to growing active tax collection. For auditors, the digital era has created a world of opportunities that allow them to provide their clients with more efficiency, accuracy, and value. Through continuous auditing and data analytics, auditors can find valuable insights, minimize risks, and optimize their procedures. However, auditors need to keep up with these technical developments, update their knowledge, and keep a close eye on how the digital world is changing. The novelty of the current work lies in examining the link between auditing and digital transformation, taking into account the utilization of factors and their contribution to the enhancement of tax authorities. It also highlights the role of real-time data analysis in improving auditors' decision-making abilities. This study is particularly unique in the context of developing countries, especially in the Arabian Gulf, and specifically within Oman.

Key words: Digital accounting, auditing, taxation, technology.

Problem description. In today's rapidly evolving business landscape, where technology plays a pivotal role in almost every aspect of our lives, it comes as no surprise that the field of auditing has also undergone a transformation [1]. The digital tools have provided auditors and accountants with a multitude of powerful tools and technologies, enabling them to streamline processes, enhance accuracy, and achieve greater efficiency in their work. Technology has also revolutionized the way auditors conduct their work, particularly in the wake of the COVID-19 pandemic [2]. Remote auditing is considered important tool for making auditors to achieve their responsibilities

from everyplace in the world. According to Bakarich and O'Brien [3], two of the most recent innovations, machine learning (a subset of artificial intelligence) and robotic process automation (RPA), are becoming more and more common in the public accounting sector due to a variety of ongoing use cases. Nonetheless, Moll and Yigitbasioglu [4] draw attention to the need for more research to clarify the new roles and competencies in accounting. In a similar vein, others contend that insufficient research has been done on how cutting-edge digital technology will affect the auditing profession [5, 6, and 7]. Because of this, the reality of audit firms is that they must quickly and aggressively change the accounting and auditing system by utilizing digital and electronic technology in accordance with the methods and guidelines that industrialized and non-industrialized nations have shown effective.

Literature review. The effects of emerging technology, including robotic process automation and artificial intelligence, on auditing firms were examined by Vitali and Giuliani [8]. They pay particular attention to the day-to-day operations, hiring procedures, organizational structure, and the disparity in pricing between Big4 and non-Big4 auditing firms. To do this, field research comprising 14 auditing firms both Big4 and non-Big4 from Consob's list served as the basis for the study. The findings show that auditors will benefit from the new technologies since they will be able to concentrate on tasks that offer value. Tenyukh et al., [9] investigation into the application of digital technologies in taxation and accounting at Ukrainian businesses allowed for the conclusion that, given the current situation in which Ukraine has chosen the path of digitalization, their use is a requirement for enhancing it and, consequently, improving the general efficiency of business processes. The management of Ukrainian firms will be able to select digital technologies based on the assigned tasks by using the proposed flowchart for digital technology selection in accounting and auditing. It is determined that the most common digital technologies in accounting at Ukrainian enterprises are cloud technologies and technologies for working with large data sets. Syrtseva et al.,[10] identified areas and developed mechanisms to enhance the accounting system's organization and control over tax liability calculations for budgetary institutions. The study demonstrated how the development of a cutting-edge information and analytical resource for the tax service optimizes the accounting and control system, paving the way for the introduction of more potent mechanisms for tax administration, economic de-shadowing, and enhanced cash flow management. Uzhva et al., [11] examine the characteristics of accounting and analytical assistance in the digital economy; consider the applications of IT in accounting and auditing. According to the research, untapped potential might be uncovered thanks to the way accounting and IT systems are structured. According to Iansiti and Lakhani [12], the incorporation of Blockchain technology has led to increased transparency and trust in accounting procedures. Because of its decentralized ledger structure, which guarantees transaction immutability, fraud risk is lower and financial record authenticity is increased.

Hypothesis 1: There is a positive relationship between digital procedures of accounting and tax collection efficiency.

Hypothesis 2: There is a positive relationship between digital procedures of auditing and tax collection efficiency.

Research aims and objectives. The main goal of this study is to examine the digital procedures of accounting and auditing on tax collection efficiency.

Methods. The current study, in its methodology, is based on a cross-sectional design that takes into account the quantitative approach. Questionnaires were distributed and data were collected according to these questionnaires based on a study [13]. The focus of the analysis of the current study is those currently working in the Tax Department, specifically the inspectors in Amman at the General Tax Authority. The number of people targeted by the study reached 75 people, including 60 tax inspectors. The data collected was analyzed using the Smart-PLS software. One of the probability sampling methods, a random sample, was used as the sampling approach. Random sampling is the most widely used technique for sampling. By adopting random sampling, bias is minimized. Because individual variance within the sample is a trustworthy predictor of variance in the population, estimation of findings is more accurate. Within the parameters of the sample size, this sample gives the study additional information [14].

Results and discussions. According to Hair et al. [15], discriminant validity indicates the extent to which a construct differs from other constructs. Therefore, there are a few conditions that need to be verified to verify it utilizing PLS analysis. This means that the square root of any average variance extracted (AVE) construct must exceed the range of correlations for the relevant construct. Table 1. demonstrates that when compared to other constructs that convey appropriate information regarding the validity of the discriminant, the AVE square root is greater than the correlation of the construct.

Table 1.

Discriminant validity constructs and variance explanation

	Digi-pr-Accounting	Digi-pr-Auditing	Tax-Co-Eff
Digi-pr-Accounting	1		
Digi-pr-Auditing	0.767	1	
Tax-Co-Eff	0.773	0.538	1

Testing the coefficient was one of the evaluation's criteria, and it was carried out to verify the structural model (R2). In the current study, the endogenous variable's R2 value was 0.172, indicating that all the independent factors could account for 17% of the variance in tax collecting efficiency. Table 2 below displays the variance explained for the endogenous construct. To comprehend multidisciplinary challenges, this study used condition indices and variance inflation factors (VIFs) to assess independent variables, or digital accounting and auditing systems. It means that the independent variables (digital procedures of accounting and auditing) are correlated with dependent variable, tax collection efficiency.

Table 2.

Variance Explanation

	R-square	R-square adjusted
Tax-Co-Eff	0.172	0.128

In order to test the hypothesis that there would be a positive relationship between tax collection efficiency and digital accounting and auditing procedures, two factors H1 and 2 were examined using a process known as bootstrapping. A coefficient is considered acceptable if its range is greater than 0.1[16]. Following the generation of the path, the primary set is assessed; three factors were found to be significant, while one was deemed to be unimportant. Table 3 explains the possible outcomes of the assessment of the hypothesis; the findings indicated that there is a positive relationship between tax collection efficiency and digital accounting procedures, where the value was $p < 0.05$, $t = 0.686$. As a result, H1 is supported. The findings demonstrated a favorable correlation between the digital auditing methods and the efficiency of tax collection, with a p-value of less than 0.01, $t = 0.439$. H2 is therefore supported. Utilizing digital tools for accounting and auditing operations has revolutionized the field by offering a plethora of efficient resources and technologies to enhance precision and streamline processes.

Table 3.

Path coefficient

	Original sample	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values	Results
Digi-pr-Acco	0.125	0.091	0.174	0.686	0.002**	Accepted
Digi-pr-Audi	0.139	0.164	0.269	0.439	0.001***	Accepted

The findings of this study provide essential new insights into the trans-formative effect of digital accounting and auditing procedures on tax collection efficiency in Omani Taxation Authority. Tax authorities must consider supporting state-of-the-art digital and electronic systems and educational and training programs to equip auditors with the abilities and knowledge essential to use tools of technological advances effectively. Additionally, by offering empirical proof of the advantages of digital processes, the current study makes theoretical contributions to the body of knowledge on accounting's digital revolution. Through the use of statistical tools from Smart-PLS and a quantitative methodology, the research expands on the knowledge of how real-time monitoring and continuous auditing can improve tax collection. This is consistent with other research, which suggests that digitization enhances organizational efficacy and efficiency by enabling faster, more accurate information processing. Additionally, by showing how digital innovations can cause a change from conventional retroactive auditing to a further dynamic and ongoing process, this study advances the theory. This transformation not only modifies the function of accountants but also amplifies their ability to offer strategic benefit to their companies.

Conclusions and prospects for further research. In light of technological advancements and intense competition in both developed and developing economies, accountants and auditors can benefit from available data, information, and advanced monitoring technology. Their ability to identify challenges and risks before and as they

occur has been significantly enhanced and strengthened. Their skills in proactively mitigating risks have also improved. The current study took into account investigating the impact of practices related to digital auditing and accounting on the efficiency of tax collection in the Omani context. The current study used a quantitative approach and selected data from 150 tax inspectors. The results of the current study indicate that digital procedures enhance the efficiency of tax collection, as the current study used Smart technology to analyze the data SmartPLS. The study also demonstrated with regard to auditors that attention to keeping pace with technology and its development is essential in raising value by enhancing accuracy and efficiency. The research is limited to the Omani Tax Power, which could restrict the applicability of the results to other areas with dissimilar technology and regulatory landscapes. Subsequent investigations may reproduce this study in various settings to investigate the applicability of the noted impacts. Furthermore, this study did not analyze the effects of certain digital tools and platforms employed in the auditing process.

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