



# Determinants of research productivity and efficiency among the Arab world's accredited business schools

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## Abstract

This article presents a bibliometric analysis of the research output of the Arab world's 30 AACSB- and EQUIS-accredited business schools between 2013 and 2022. The analysis aims to provide an overview of the research performance of these schools, identify research strengths, and highlight areas for improvement. The study examines 12,693 publications indexed in the Scopus database. The findings reveal remarkable progress in research productivity, including a steady increase in publications in high-impact journals. Notably, business schools in Lebanon, Oman, Qatar, and the United Arab Emirates demonstrate exceptional research performance. The study also reveals variations in citation impact based on publication type, co-authorship patterns, international collaborations, journal rankings, and disciplines. The research themes explored by the Arab world's accredited business schools cover a wide variety of topics, including personnel, innovation, trade openness, mobile banking/payment, stock and financial markets, economic growth, supply chain, corporate social responsibility, entrepreneurship, community participation, and oil prices and markets, among others. The research areas align with several United Nations sustainable development goals. These findings offer valuable insights for the region's business schools to benchmark their research performance and gain a nuanced understanding of the factors that contribute to increased research productivity and impact. The study concludes that business schools in the Arab region must continue to enhance their publication rates in top-tier journals, foster improved international collaborations, and implement new research incentive schemes and excellence initiatives that recognize and reward high-quality research.

**Keywords** Arab countries · Bibliometrics · Business schools · Middle East · Research impact

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## 1 Introduction

Business schools worldwide are increasingly striving for international accreditation to bolster their reputation and competitiveness in the global landscape (Alajoutsijarvi et al. 2018; Rindova et al. 2018). Within this context, research quality and productivity have become fundamental indicators of an academic institution's standing. Accordingly, understanding the determinants of research productivity and efficiency in business schools has emerged as a promising academic pursuit, offering valuable insights to improve research performance and increase awareness among university leaders on how to enhance the scientific output and impact of their institutions (Ellegaard and Wallin 2015; Olavarrieta and Vargas 2022). Hence, we decided to use bibliometric analysis to uncover the success factors of top business schools, capture nuances of research performance, and identify potential areas for improvement (Ellegaard and Wallin 2015; Hicks et al. 2015; Zupic and Čater 2015).

Despite the power, importance, and utility of bibliometric analyses, studies on research productivity and efficiency in emerging countries' business schools, particularly in the Arab world, are still limited (Olavarrieta and Vargas 2022). This gap is unfortunate, considering the ongoing calls for educational system reforms in the Arab world, emphasizing the need to strengthen business management research and education that can contribute to the development of responsible Arab leaders (Mousa 2021, 2022; Mousa et al. 2019, 2020). The Arab world, a region composed of 22 countries and home to over 425,000,000 people,<sup>1</sup> is a dynamic region characterized by diverse demographic profiles, shifting consumer attitudes, and varying approaches to doing business (Fainshmidt et al. 2018; Jamali et al. 2020; Mousa et al. 2021; Samara 2021; Zahra 2011). Research in this context becomes indispensable, not only as a quality signal for academic institutions but also as a means to address the complex challenges facing businesses in the Arab world, including their responsibilities in business, environmental, ethical, and social domains.

As grand challenges continue to aggravate in the Arab world, from increasing poverty rates to the exploitation of labor, corruption, migration of the productive workforce, inequality, gender biases, increased toxic emissions, biodiversity loss, and climate change (Jamali et al. 2019, 2021), the responsibilities of business scholars are as pertinent and overwhelming as ever (Elbanna et al. 2020). Business professors can create a better world by aligning their research and teaching efforts (Mousa et al. 2021; Mousa 2022). Faced with the mandate of transforming business education to respond to various pressing issues, business school scholars must hone their research skills and channel their efforts in the right direction.

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<sup>1</sup> Algeria, Bahrain, Comoros, Djibouti, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Mauritania, Morocco, Oman, Palestine, Qatar, Saudi Arabia, Somalia, Sudan, Syria, Tunisia, United Arab Emirates, and Yemen.

At this critical time of transformation, business professors have an exceptional opportunity to contribute to creating a better world through adapting innovative research and teaching in their respective fields (Mousa 2022; Mousa et al. 2021) and focusing on amplifying the reach and impact of their research and scholarship, particularly in the Arab region that is gradually moving from continuous flux (Zahra 2011) to gradual stability (Samara 2021). We focus in this paper on the 30 business schools in the Arab world that have received accreditation from the Association to Advance Collegiate Schools of Business (AACSB) ( $n=29$ ) and the European Quality Improvement System (EQUIS) ( $n=3$ )—the total is 30 because the business schools of Abu Dhabi University and the American University in Cairo are accredited by both AACSB and EQUIS (see “Appendix 1”). Through a comprehensive bibliometric analysis, we aim to uncover the growth of business research, the main trends in research orientations, and the critical determinants of research efficiency and impact among these accredited business schools.

AACSB and EQUIS accreditations are widely recognized as marks of excellence in business education and have been earned by less than 5% of the world’s business schools. As of May 2023, 981 business schools in 62 countries and territories held AACSB accreditation (out of 1948 AACSB institutional members), and 208 business schools in 45 countries had EQUIS accreditation. These accreditations signify a commitment to advancing engagement, innovation, and impact and align with global accreditation standards set by AACSB and EQUIS (Holmes et al. 2017). These standards encompass various aspects, including strategic management and innovation, learning and teaching, academic and professional engagement, and continuous advancement and innovations in research and scholarship (Alajoutsijärvi et al. 2018; Durand and McGuire 2005; Pringle and Michel 2007; Romero 2008).

To uncover the determinants of research efficiency in the 30 accredited business schools across the Arab world, we have conducted a thorough bibliometric analysis. This analysis is timely and essential, providing a roadmap for business schools and academic institutions in the Arab world to enhance their research performance and offering valuable guidance for interested scholars and administrators. Additionally, the findings of this analysis may have implications for academic institutions in developing countries, demonstrating how a region can identify specific research needs and improve research productivity and quality by focusing on critical areas of improvement. As the emphasis on research excellence continues to grow in Arab business schools and around the world, faculty, deans, university leaders, and policy-makers are likely to be keen to understand the determinants of research excellence, and this study aims to contribute valuable knowledge and insights in this regard. In light of these considerations, this study addresses the following research questions:

1. How to characterize the overall research productivity and impact of accredited business schools in the Arab world?
2. How has the research performance of business schools in the Arab region evolved?

3. What are the critical determinants of research productivity and efficiency in accredited business schools in the Arab world?
4. Are there significant differences in research performance between business schools located in different countries within the Arab region?
5. What are the main research focus areas and topics for Arab business schools?
6. How do the research outputs of business schools in the Arab world compare to the world?
7. What are the sorts of collaborations and networks established by business schools in the Arab region?
8. Are there any specific challenges or barriers that business schools in the Arab world face in terms of research productivity and impact?
9. What are the areas for improvement and potential strategies to enhance the research quality and impact of business schools in the Arab world?

Answers to these research questions can provide a comprehensive understanding of the research performance of accredited business schools in the Arab world, allowing for a thorough analysis of their productivity, impact, determinants, challenges, and opportunities for improvement. The remainder of the article is structured as follows. We first describe the methodological approach, then present the main descriptive findings, and finally, we discuss the most important policy implications and highlight the main research strengths and areas of improvement for enhancing the quality of research of Arab business schools.

## 2 Methodology

### 2.1 Data sources

To collect publication and citation data and conduct the bibliometric analyses, we utilized Scopus and SciVal. We chose Scopus because it is the world's largest multidisciplinary curated abstract and citation database (Schotten et al. 2017; Thelwall and Sud 2022). It indexes over 27,200 active journals, of which 1550 (or 5.7%) are classified under "business, management and accounting" and 1228 (or 4.5%) are categorized under "economics, econometrics, and finance" (the two broad subject categories in the database most relevant to business research). The database also indexes over 11,750,000 conference papers, 2,500,000 chapters, and 325,000 books (Baas et al. 2020; Singh et al. 2021; Visser et al. 2021). For more details about Scopus and how it compares to other similar databases, see Pranckutė (2021), Singh et al. (2021), and Zhu and Liu (2020). The SciVal is a web-based research assessment tool that allows comprehensive analysis capabilities of data from Scopus (Cucari et al. 2023).

## 2.2 Accredited schools

Our study focuses on 2013–2022 (i.e., the last ten full calendar years) to ensure the examination of recent developments within the Arab world’s accredited business schools and to avoid disadvantaging recently established schools (such as the College of Business Administration at the American University in the Emirates, the Effat Business School in Saudi Arabia, and the Rabat Business School in Morocco, established in the late 2000s and early 2010s). We included all sub-disciplines within the field of business and management, such as accounting, economics, finance, human resources management, information management, management, management information systems, marketing, and operational research, among others. It should be noted that a few institutions have within their business schools sizeable uncommon departments or academic units, such as statistics (e.g., King Saud University, Kuwait University, and the United Arab Emirates University), health services and administration (e.g., King Abdulaziz University and King Saud University), political science (e.g., King Abdulaziz University and Sultan Qaboos University), and public administration (e.g., King Abdulaziz University). Sixty percent of the institutions in our study have folded their economics departments as part of the business school (e.g., the American University in Cairo, the American University of Sharjah, and the University of Sharjah), while in other cases, economics is housed in other colleges, such as Arts and Sciences (e.g., the American University of Beirut).

## 2.3 Search methods

To provide a comprehensive and systematic approach to gathering publication data for the analysis, the study followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) protocol (Moher et al. 2009) to identify the publications of the 30 business schools, utilizing two complementary search strategies:

### 2.3.1 Affiliation search

In May 2023, we searched Scopus to identify all publications that included the names of the 30 business schools or their departments and their respective university names in the affiliation field. For example, AFFIL (“American University of Beirut”) AND (“School of Business”) was used to retrieve publications where both “American University of Beirut” and the “School of Business” were mentioned in the same affiliation line. We identified the business school names and the names of their departments by visiting their websites. We cross-validated the unit names and name changes or variations by parsing the affiliation data from the publications obtained through Method B (described below). A random sample test on 5% of the retrieved publications confirmed a relevance rate of 100%. While over 97% of the publications indexed in Scopus include author-provided affiliation information, Method A identified 10,205 or 80% of the publications examined in this study.

### 2.3.2 Author publication search

We employed this method to identify publications by current and past authors affiliated with the 30 business schools. For current authors, we recorded the names of all 1633 faculty members with the rank of assistant, associate, and full professors listed in the faculty directories on the schools' websites. The number of faculty members at the 30 schools ranged from 11 (American University of Kuwait) to 217 (King Abdulaziz University), with an average of 55 faculty members per school and a median of 48. For past authors, we parsed the author and affiliation data from the 10,205 publications found through Method A. We examined the publication record of each author affiliated with the home institutions of the 30 business schools. If an author listed the business school as the sole affiliation for their publications, we considered them a member of the business school (e.g., Jamali, D., Business Administration, University of Sharjah, Sharjah, United Arab Emirates). This method helped identify 1019 relevant authors not found through the faculty directory method, resulting in 2652 authors included in the search (or 2570 unique authors after accounting for 82 faculty who changed affiliations within the 30 schools during 2013–2023). While searching for the Scopus unique IDs of these authors, we found that 447 of them, all among the current faculty members—had no publication records in the Scopus database. We used the Scopus IDs of the remaining 2123 authors to download their publication records, filtering each result by affiliation. Search examples:

- AU-ID (“Jamali, Dima R.” 6507583282) AND (AF-ID (“University of Sharjah” 60070813) OR AF-ID (“College of Business Administration” 60227737))
- AU-ID (“Jamali, Dima R.” 6507583282) AND (AF-ID (“American University of Beirut” 60068761) OR AF-ID (“Suliman S. Olayan School of Business” 60199561))

Method B identified 12,157 publications. A random sample test on 5% of the retrieved publications confirmed that all were relevant. Among these 12,157 publications, 9595 overlapped with Method A, and 2562 were uniquely identified through Method B. These unique publications were missed by Method A primarily due to misspellings, the use of acronyms, the provision of incomplete information in the affiliation field, and publications by non-faculty.

After removing the overlap, the two search methods identified 12,767 publications. Following Clarivate's approach used in their annual list of highly cited researchers,<sup>2</sup> we excluded 22 publications with more than 30 co-authors each to ensure fair credit to individual authors and schools. Additionally, we excluded 45 publications classified as “erratum” and seven classified as “retracted” by Scopus. The remaining 12,693 publications were classified into various types, including articles (80.2%), conference papers (9.3%), chapters (5.2%), reviews (3.0%), editorials (1.4%), books (0.6%), and other types of material (0.3%). Except where we discuss

<sup>2</sup> <https://clarivate.com/highly-cited-researchers/>.

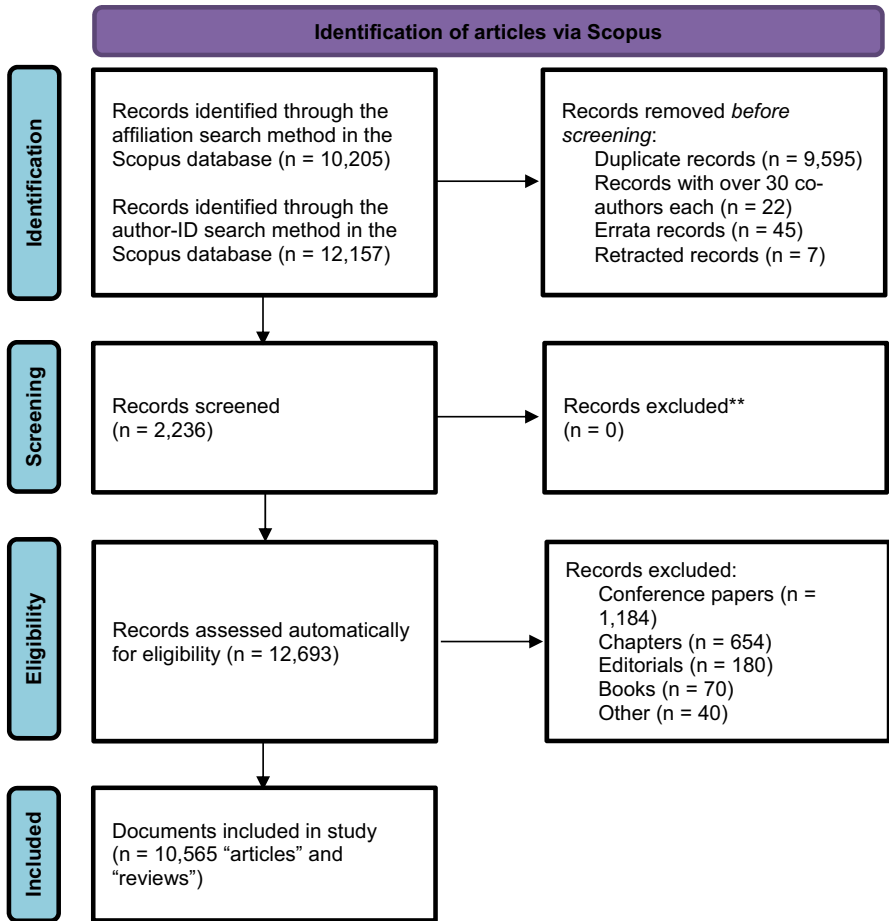


Fig. 1 PRISMA protocol to identify documents for this bibliometric study

the difference in research impact by publication type, we focus our analysis on the 10,565 identified articles and reviews, which we refer to as articles in the remainder of this paper. Figure 1 summarizes the process of identifying and selecting these articles.

## 2.4 Metrics

For this study, we generated the following metrics:

- The number of journal articles for all 30 schools, individually and combined. We use this data to examine growth in research output from one year to another and compare that with business research worldwide, based on the two Scopus broad subject categories most relevant to this study: “Business,

Management, and Accounting” and “Economics, Econometrics, and Finance.” Under Business, Management, and Accounting, Scopus includes journals and articles related to accounting, business administration, business and international management, industrial relations, management, management information systems, management of technology and innovation, marketing, organizational behavior and human resource management, strategy and management, and tourism, leisure, and hospitality management.

- The proportion of articles published in high-impact journals. We collected this information to study the visibility, prestige, or importance of the journals in which the Arab region business schools’ research is published. We also compare the business schools’ performance in this area to the world in general in the two broad Scopus subject categories most relevant to this study: “Business, Management and Accounting” and “Economics, Econometrics, and Finance.” For journal rankings, we use the Scopus-based CiteScore journal evaluation metric as a proxy for assessing the journals’ relative research influence, impact, prestige, or importance within their respective subject areas. Journals with higher CiteScore values are often deemed more important or carry more prestige in their respective fields than those with lower values (Teixeira da Silva 2020). Like the Web of Science-based Journal Impact Factor, CiteScore is not a perfect tool to measure the quality of research, yet it is widely used for scientific evaluation. Using these tools as proxy measures of quality is widespread because it fits well with the opinion of scientists in each field of the best journals in their respective specialties (Eyre-Walker and Stoletzki 2013; Garfield 2006; Teixeira da Silva 2020).
- The number of citations per article for each and all 30 schools. We examine the impact of publication type (e.g., article vs. chapter), co-authorship patterns (e.g., articles with a single author vs. articles with more than one author), collaboration (e.g., national vs. international), and publication venues (e.g., top quartile journals vs. second quartile journals) on citation rates (Baas et al. 2020; Visser et al. 2021). We also compare citation rates per article along disciplinary and sub-disciplinary lines and compare results with the world in general in the two broad Scopus subject categories most relevant to this study: “Business, Management and Accounting” and “Economics, Econometrics, and Finance.”
- Bibliometric data for top 10 schools. We provide such data on these schools to allow business schools to benchmark themselves in research quantity and impact. We selected those schools with the largest percentage of articles published in Q1 journals and have a citation rate per article higher than the average for the 30 schools combined: Abu Dhabi University, American University of Beirut, American University of Sharjah, King Abdulaziz University, Lebanese American University, Qatar University, Prince Sultan University, Sultan Qaboos University, United Arab Emirates University, and the University of Sharjah.
- Research topics: We used the VOSviewer software to create a visual map of the research themes that have drawn the greatest attention from the 30 accredited business schools. Research themes can indicate the most prominent topics studied within the Arab region’s business schools while pointing out areas that may have been neglected and deserve further scholarly attention.



- The United Nations sustainable development goals (SDGs): Arab business schools have also been highly interested in conducting research relevant to the UN 2030 SDGs. The UN 2030 agenda was initiated in 2015, offering an ambitious and universal roadmap for a more sustainable future for humanity. The SDGs include 17 goals touching on social, environmental, and economic milestones, such as reducing poverty and hunger, protecting the planet, and promoting economic prosperity.

## 2.5 Advantages of analyzing accredited business schools data:

Key advantages to analyzing the research of accredited business schools include:

- *Credibility and quality assurance* Accredited business schools have undergone rigorous evaluation processes by recognized accreditation bodies like AACSB and EQUIS. These accreditations ensure schools meet stringent quality standards, curriculum, faculty qualifications, and research output. Analyzing research performance specifically from accredited schools provides assurance of credibility and adherence to high standards, enhancing the reliability of the analysis.
- *Representativeness* Accredited business schools are considered leading business and management education institutions. They attract top faculty, researchers, and students, making their research output representative of the broader business and management literature. By studying these schools, one can focus on institutions that have established expertise and contribute significantly to the field, providing a comprehensive view of research trends and advancements.
- *Access to comprehensive data* Accredited business schools are typically highly engaged in research activities (e.g., publications, collaboration, and funding). Analyzing their data would enable us to draw robust conclusions about research performance, trends, and impact, enhancing the accuracy and depth of our analysis.
- *Comparative analysis* Studying accredited business schools allows meaningful comparisons across institutions. Analyzing research performance within a specific set of accredited schools creates a standardized framework that enables fair and accurate comparisons. This comparative analysis facilitates identifying best practices, benchmarking performance, and understanding variations in research productivity and impact among institutions.
- *Industry and policy relevance* Accredited business schools directly connect to industry and policy domains. Their research often addresses real-world challenges and contributes to knowledge that can inform business practices and policy decisions. Analyzing the research performance of accredited schools provides insights into the topics, methodologies, and areas of research that have direct relevance to industry, policymakers, and other stakeholders.
- *Impact on business education* Accredited business schools significantly shape business education and management practices. Analyzing their research performance provides a comprehensive view of the advancements, trends, and emerging areas in business and management literature. As such, study findings can

**Table 1** Classification of the articles by broad subject categories per Scopus

Subject category	Articles (N = 10,565)	Proportion of all articles* (%)
Business, management, and accounting	5270	50
Economics, econometrics, and finance	3341	32
Social sciences and humanities	2639	25
Computer science	1642	16
Engineering	1082	10
Decision sciences	948	9
Environmental science	929	9
Energy	691	7
Mathematics	619	6
Health and medicine	554	5
Psychology	337	3
Other	358	3

\*Total is over 100% due to overlap

influence curriculum development, research funding priorities, and educational strategies, leading to the improvement and advancement of business education.

By focusing on accredited business schools, we can ensure methodological rigor, analyze comprehensive data, make meaningful comparisons, and generate insights that have practical implications for industry, policy, and business education. This approach provides us a reliable and accurate way to analyze business and management literature, contributing to advancing knowledge and practices in the field.

### 3 Findings

#### 3.1 Subject classification and research growth, quality, and impact

According to Scopus, most of the 10,565 articles published by the Arab world's 30 accredited business schools fall under the two subject categories "Business, Management, and Accounting" (50%) and "Economics, Econometrics, and Finance" (32%)—or 67% of the total output when articles of the two subject categories are combined (Table 1).

The results, however, also show evidence of the inter- and multi-disciplinary nature of the intellectual contributions of the business schools in the region. Social sciences are salient mainly because of the strong affinity of business research with social sciences. Computer science and engineering research make up a large proportion of the output mainly because of the prominence of management information systems and operations management programs at most schools, and so are decision sciences and mathematics. Environmental science and energy feature prominently mainly because of recent interest in the UN SDGs. Health sciences and

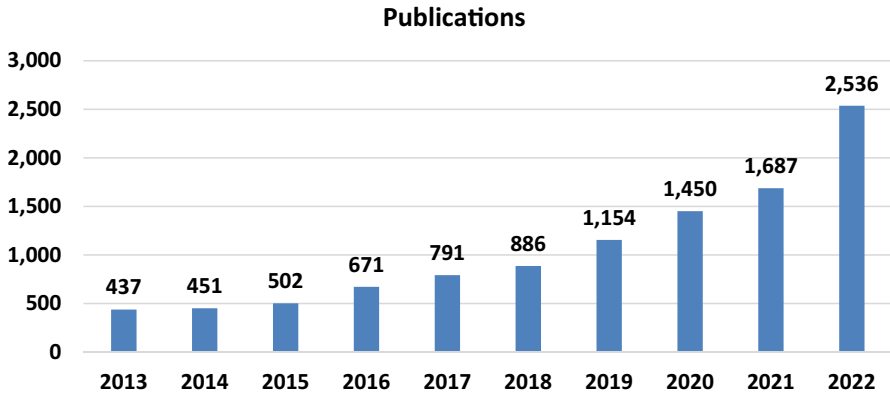


Fig. 2 Growth in research output (articles) among the 30 accredited business schools

**Table 2** Growth in the number of articles in business: the 30 accredited schools versus the world

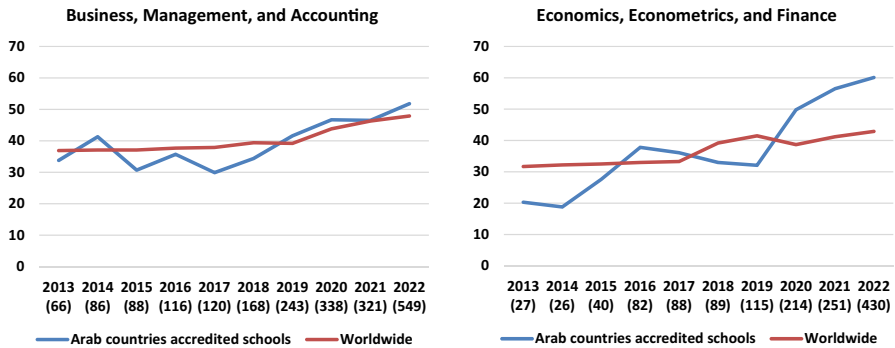
Publication year	30 accredited schools	Worldwide
2013	310	72,939
2014	322	77,668
2015	390	82,097
2016	497	86,856
2017	568	93,220
2018	640	99,717
2019	804	114,846
2020	1001	120,371
2021	977	117,936
2022	1517	133,116

The data here cover articles classified by Scopus under the two broad business-related subject categories: “Business, Management, and Accounting” and “Economics, Econometrics, and Finance”

medical research are prominent because many business schools are in universities with sizeable medical and health sciences programs, enticing significant research collaborations.

Our results show remarkable growth in research output and improvement in research quality among the 30 accredited business schools. In terms of quantity, the research output has increased considerably over the years, going up from 437 articles in 2013 to 2536 articles in 2022 (Fig. 2).

To better illustrate the extent of this growth, we compared the research output of the 30 business schools with the global trends in the two subject categories most relevant to business research: “Business, Management, and Accounting” and “Economics, Econometrics, and Finance.” As shown in Table 2, the research output of the 30 Arab region-accredited business schools witnessed a five-fold increase from



**Fig. 3** Proportion of articles published in top quartile journals per CiteScore in the two broad subject categories most relevant to the field of business. Figures between parentheses refer to the number of articles in the top 25% journals by the Arab world's accredited schools

2013 to 2022, rising from 310 articles to 1517 articles. In contrast, the global growth during the same period was less than double.

While this increase may be attributed to the continuous growth in the faculty body across Arab business schools, it also reflects institutional isomorphism driven by coercive, mimetic, and normative pressures. This indicates the emergence of a research culture and positive trends toward increased productivity among academic institutions in the Arab world. Undoubtedly, there is a growing recognition of the significance of research across business schools and universities in the region.

Regarding the prestige or rankings of the journals in which the accredited business research from the Arab world is published, our results demonstrate considerable advancements during 2013–2022. In Business, Management, and Accounting, the proportion of articles published in CiteScore top quartile journals increased from 34% in 2013 to 52% in 2022. Similarly, in Economics, Econometrics, and Finance, this proportion rose from 20% in 2013 to 60% in 2022. In both cases, these results compare favorably to the improvements observed in publishing in top-quartile journals worldwide during the same period (Fig. 3).

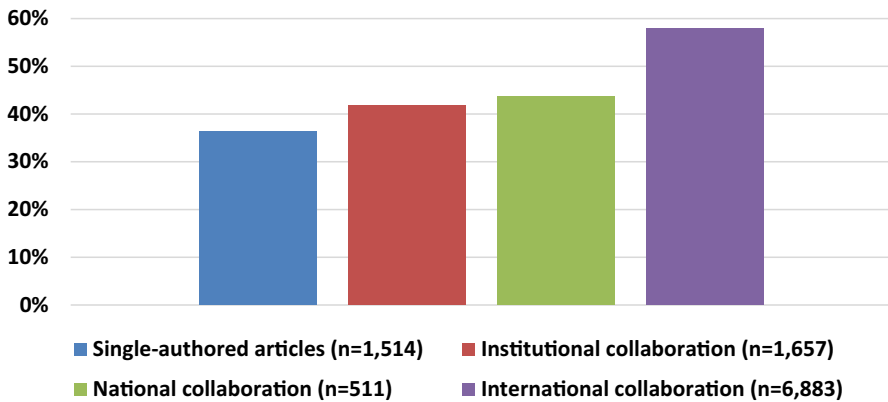
According to Tahamtan et al. (2016), many factors affect the number of citations a paper receives, including paper-related (e.g., quality of paper and document type), journal-related (e.g., journal ranking), and author-related (e.g., co-authorship, collaboration, and funding). Here, we examine the differences in citation rates by document type, co-authorship patterns, collaboration type, and journal rankings. As can be seen in Table 3, journal and review articles attract more citations than other types of publications and constitute the best investment in time and resources for researchers wishing to achieve more visibility and impact. This is followed distantly by editorials, books, conference papers, and book chapters. Therefore, our main recommendation based on these findings is for business researchers to prioritize publishing in journals, as this can significantly enhance the visibility and impact of their work. Consistent with previous studies examining articles and reviews (see Tahamtan et al. 2016), the data suggest that researchers aiming to expand the reach and impact of their work should focus on original research, literature reviews, systematic reviews,

**Table 3** Citation rate per publication type, co-authorship, collaboration, and journal ranking

	Publication count	Percentage of all publications (%)	Citations per publication
<i>Citation rate per publication type (N = 12,693 publications)</i>			
Reviews	386	3.0	20.0
Articles	10,179	80.2	15.2
Editorials	180	1.4	6.4
Books	70	0.6	6.2
Conference papers	1184	9.3	4.5
Chapters	654	5.2	2.4
Other	40	0.3	6.6
Overall	12,693	100.0	13.5
<i>Citation rate by the number of co-authors per article (N = 10,565 articles and reviews)</i>			
Single-author	1514	14	11.1
Two co-authors	2567	24	13.8
Three co-authors	2805	27	15.7
4–5 co-authors	2734	26	18.4
6–10 co-authors	881	8	16.4
11–30 co-authors	64	1	18.5
Overall	10,565	100	15.5
<i>Citation rate by the number of collaborating institutions per article (N = 10,565 articles and reviews)</i>			
Single-institution	3305	31	11.8
Two institutions	3117	30	13.9
Three institutions	2010	19	18.4
4–5 institutions	1605	15	19.8
6–30 institutions	528	5	20.5

Table 3 (continued)

	Publication count	Percentage of all publications (%)	Citations per publication
<i>Citation rate of articles by type of collaboration (N = 10,565 articles and reviews)</i>			
No collaboration	1514	14	11.1
Institutional	1657	16	12.6
National	511	5	10.2
International	6883	65	17.4
<i>Citation rate of articles by CiteScore journal ranking (N = 10,082 articles and reviews in ranked journals)</i>			
Top 10% journals	2291	23	28.1
Q1 journals	5218	52	22.1
Q2 journals	2647	26	11.5
Q3 journals	1521	15	6.9
Q4 journals	696	7	4.4



**Fig. 4** Proportion of articles published in Q1 journals per CiteSore, by type of collaboration

and meta-analyses. Business scholars can optimize their work's citation rates and influence by aligning their research efforts with these publication types.

Consistent with findings from previous relevant studies (e.g., Li et al. 2013), our data further support the notion that co-authorship can positively influence the reach and impact of business research. As shown in Table 3, multi-authored articles receive more citations than single-authored articles. Specifically, articles with four or more co-authors demonstrate the highest average number of citations per article, followed by articles with three and two co-authors, in that order. These results emphasize the importance of collaboration in research activities for faculty members. It is crucial, however, to exercise caution and selectivity when choosing co-authors to ensure fruitful and productive collaborations. Collaboration offers the benefit of sharing the workload and easing the efforts involved in the publication process, ultimately leading to improved visibility, citation rates, and overall impact. Our results also show a similar trend regarding the citation count per the number of collaborating institutions. As the number of collaborating institutions increases, the citation rate per article also increases. This indicates that authors can attract more citations to their papers when collaborating with authors from other institutions.

Like the advantages of multi-co-authorship, international collaboration also positively influences the quality, visibility, and impact of business research (Tahamtan et al. 2016). For example, our findings demonstrate that articles involving international collaboration are more likely to be published in higher-ranked journals than those without. Specifically, 58% of the articles with international collaboration are published in top-quartile journals compared to less than 40% in the case of national collaboration and institutional collaboration (see Fig. 4). These results highlight the significance of international collaboration in enhancing the scholarly output of business research. Engaging with researchers from different countries and institutions brings diverse perspectives and expertise and increases the likelihood of accessing higher-ranked journals. Therefore, fostering international collaboration can be a strategic approach for business researchers seeking to enhance their work's quality, visibility, and impact.

The results further highlight the impact of international collaboration on the citation rates of business research articles. Articles involving international collaboration receive significantly more citations per article (17 citations per article) compared to articles with only national collaboration (10 citations per article) and articles without external institutional collaborations (13 citations per article) (Table 3). These findings emphasize the importance of business researchers expanding their network and actively engaging with credible international scholars. Collaborating internationally brings diversity and added value to research and enhances the learning process through exposure to different perspectives, writing styles, and cultures.

Table 3 also underscores the significance of journal visibility, prestige, or ranking in determining the citations and impact of business scholarship. Articles published in the top 10% and top 25% journals attract considerably more citations per article (28 and 22 citations per article, respectively) compared to articles in Q2 journals (12 citations per article), Q3 journals (7 citations per article), and Q4 journals (4 citations per article). This emphasizes the need for business researchers to devote time to identifying suitable outlets for their work, preferably within the top 10% and 25% journals, as this choice significantly influences the circulation, reach, impact, and citations of their publications.

To examine variations in research impact among different business sub-disciplines, we first identified the sub-disciplines with the highest number of published articles. Then we calculated the citations per article within each sub-discipline. Table 4 provides a summary of this data. As expected, citation rates per article exhibited variability across sub-disciplines. Notably, we observed that Arab countries' accredited business schools tend to surpass the world average regarding citation rates per article in most sub-disciplines. However, it is important to note that, irrespective of the significance of the differences in citation rates among the sub-disciplines, business schools and deans should refrain from comparing faculty members across different fields, such as Finance and Management. This caution is warranted because several other factors must be considered, including differences in publication rates, co-authorship patterns, and citation practices among the various sub-disciplines (Hicks et al. 2015).

### 3.2 Most cited articles

In this analysis, we examine the characteristics of articles that have garnered significant attention from scholars over time. We specifically focus on two categories: the 106 articles with the highest number of citations, representing 1% of all articles included in the study, and the 106 with the highest Field-Weighted Citation Impact (FWCI). We used both methods because a simple citation count (as in the first category of articles) may favor older articles that have had more time to attract attention from scholars. In contrast, FWCI considers factors such as sub-discipline, publication type, and publication year to calculate an article's impact. The world average FWCI is 1.00 for every sub-discipline. For example, an article published in 2018 in the field of Marketing with an FWCI of 2.00 indicates that it has received twice the average number of citations compared to all 2018 articles in the field of Marketing.



**Table 4** Citation impact by major business subject categories/sub-disciplines

	Articles	Percentage of all articles (%)	Citations per article (av. of 30 schools)	Citations per article (world average)
<i>Major-business and economics sub-disciplines</i>				
Economics and Econometrics	2546	24	15.2	13.3
Business and International Management	1818	17	13.6	13.4
Strategy and Management	1730	16	12.3	14.6
Finance	1154	11	13.6	12.3
General Business, Management, and Accounting	846	8	13.6	10
Marketing	818	8	21.0	18.5
Management of Technology and Innovation	698	7	18.2	12.7
Accounting	692	7	9.9	12.8
General Economics, Econometrics, and Finance	609	6	7.4	5.7
Organizational Behavior and Human Resource Management	590	6	11.5	13.9
<i>Other sub-disciplines</i>				
Geography, Planning, and Development	564	5	17.5	11.2
Management Science and Operations Research	556	5	13.7	15.9
Education	532	5	11.7	8.6
Computer Networks and Communications	511	5	19.8	12.7
Information Systems	488	5	19.7	13.9

**Table 5** Publication venues of the top 1% most cited articles

Scopus source	Publications	CiteScore 2022	Highest CiteScore ranking
Energy Economics	9	14.7	Top 2%
Resources Policy	9	11.3	Top 2%
Technological Forecasting and Social Change	8	17.2	Top 2%
Computers in Human Behavior	7	17.8	Top 2%
Journal of Cleaner Production	7	18.5	Top 2%
Finance Research Letters	6	10.8	Top 5%
Journal of Business Research	6	16.0	Top 5%
Renewable and Sustainable Energy Reviews	5	26.3	Top 5%
Sustainability	5	5.8	Q1
International Review of Financial Analysis	4	9.1	Top 10%
Journal of International Financial Markets, Institutions, and Money	4	5.3	Q1
Tourism Management	4	22.9	Top 2%
International Journal of Information Management	3	41.9	Top 2%
Journal of Business Ethics	3	12.0	Top 2%
Renewable Energy	3	16.1	Top 10%

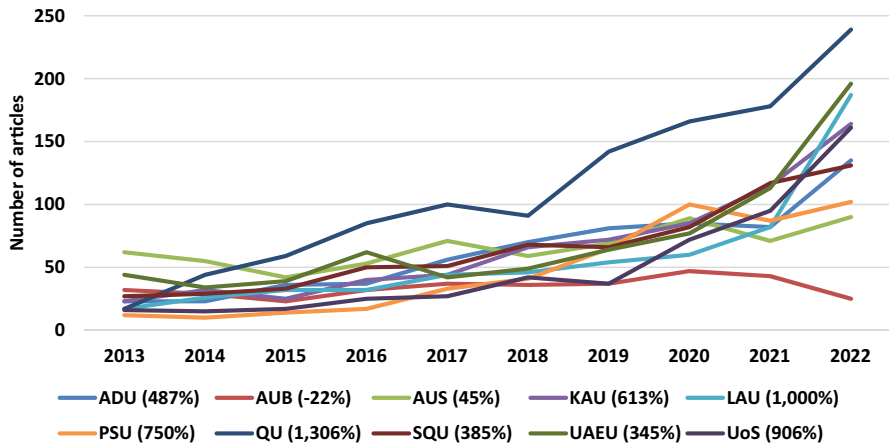
Table limited to the 15 journals with the largest number of top 1% most cited articles

**Table 6** Business schools with the largest number of top 1% most cited articles

Institution	Country	Top cited articles
Lebanese American University	Lebanon	22
Abu Dhabi University	United Arab Emirates	21
University of Sharjah	United Arab Emirates	21
Qatar University	Qatar	19
Sultan Qaboos University	Oman	16
King Abdulaziz University	Saudi Arabia	15
United Arab Emirates University	United Arab Emirates	13
Prince Sultan University	Saudi Arabia	11
American University of Sharjah	United Arab Emirates	8
King Saud University	Saudi Arabia	7

Table limited to the ten business schools with the largest number of top 1% most cited articles

Combining these two sets of 106 articles resulted in 181 unique articles (after removing the overlap). Among these articles, 67% were published in the top 10% journals, and 87% were published in Q1 journals per CiteScore (see Table 5). Moreover, on average, these 181 articles had four authors per article, and 86% of them involved international collaboration, further emphasizing the value of collaborative research efforts. Over 52% of the 181 highly cited articles were published by the



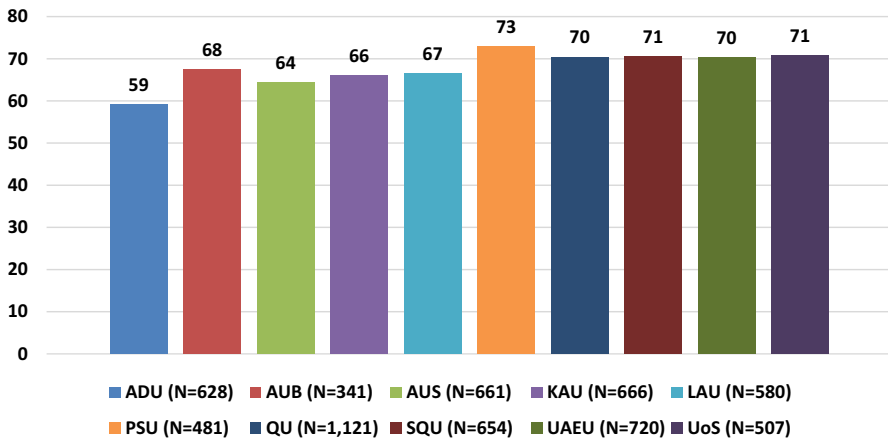
**Fig. 5** Trends in research output growth among the top 10 accredited schools. The ten accredited schools with the highest proportion of articles published in the top 25% journals per CiteScore and citations per article higher than the average of the 30 schools combined are listed here. *ADU* Abu Dhabi University, *AUB* American University of Beirut, *AUS* American University of Sharjah, *KAU* King Abdulaziz University, *LAU* Lebanese American University, *PSU* Prince Sultan University, *QU* Qatar University, *SQU* Sultan Qaboos University, *UAEU* United Arab Emirates University, *UoS* University of Sharjah. Percentages refer to the extent of change in research productivity from 2013 to 2022

business schools of five institutions: the Lebanese American University (22), Abu Dhabi University (21), University of Sharjah (21), Qatar University (19), and Sultan Qaboos University (16) (see Table 6). Based on the author-provided keywords, the main research themes explored by these 181 articles included: Covid-19 and its impact on, or relationship with, spillovers, cryptocurrencies, and oil markets and prices (16%), economic growth and its impact on, or relationship with, renewable energy, energy consumption, and carbon emissions (10%), corporate, environmental, financial, operational, and organizational performance (10%), brand, trust, and customer loyalty/satisfaction (10%), sustainability (8%), social media (6%), and supply chain (6%).

### 3.3 Research performance of the Arab world’s top business schools

To provide a benchmark for research output and impact among the region’s accredited business schools, we analyzed the research output of the top 10 schools with (1) the highest percentage of articles in the top 25% journals per CiteScore and (2) a citation per article rate higher than the average of all 30 schools combined. Figure 5 shows the research growth of these ten schools from 2013 to 2022.

Except for the Olayan School of Business at the American University of Beirut, all top 10 schools have experienced significant increases in their research activities over the years. Most notably, Qatar University’s business school moved from 16 articles in 2013 to 239 in 2022, the Adnan Kassar Business School at the Lebanese



**Fig. 6** Percentage of articles with international collaboration. Figures in parentheses refer to the total number of articles published. *ADU* Abu Dhabi University, *AUB* American University of Beirut, *AUS* American University of Sharjah, *KAU* King Abdulaziz University, *LAU* Lebanese American University, *PSU* Prince Sultan University, *QU* Qatar University, *SQU* Sultan Qaboos University, *UAEU* United Arab Emirates University, *UoS* University of Sharjah

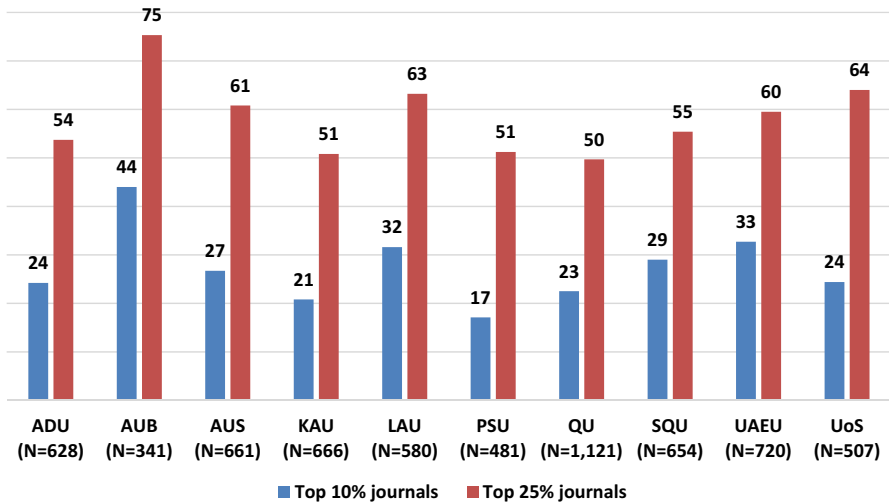
American University increased its output from only 17 articles in 2013 to 187 articles in 2022, and the University of Sharjah which grew its output from 16 to 161 articles during that period. The decline in research output at the business school of the American University of Beirut has resulted from the lag resulting from the loss of several faculty members because of the dire economic conditions of Lebanon and the difficulty in recruiting similar caliber replacements.

These findings undeniably demonstrate the strong commitment and support provided by governments, universities, business schools, scholars, and administrators, resulting in substantial improvements in research output. It is worth noting that the increase in research output is not solely attributed to the growing number of faculty members but is also influenced by newly introduced policies and initiatives. For example, Qatar University offers financial incentives to faculty members for publishing.<sup>3</sup> The American University of Beirut reinstated tenure in 2016, with research output and quality being a prerequisite for securing tenure.<sup>4</sup> The University of Sharjah holds research as an essential requirement for promotion. It provides monetary and non-financial incentives for conducting quality research, such as reducing the teaching load for faculty. The American University of Sharjah and the United Arab Emirates University have established centers of excellence and research chairs, further promoting research endeavors (Abouchedid and Abdelnour 2015; Waterbury 2018).<sup>5</sup>

<sup>3</sup> <http://www.qu.edu.qa/research/offices/office-of-academic-research/publication-reward>.

<sup>4</sup> <https://www.timeshighereducation.com/world-university-rankings/world-university-rankings-2019-elevating-influences-lower-ranked>.

<sup>5</sup> <https://www.aus.edu/sba/partnerships/our-partners/the-sheikh-saoud-bin-khalid-bin-khalid-al-qassimi-chair-in-family-business>, <https://www.uaeu.ac.ae/en/kegeb/>, and <https://www.uaeu.ac.ae/en/dvrcgs/research/centers/cppl/>.



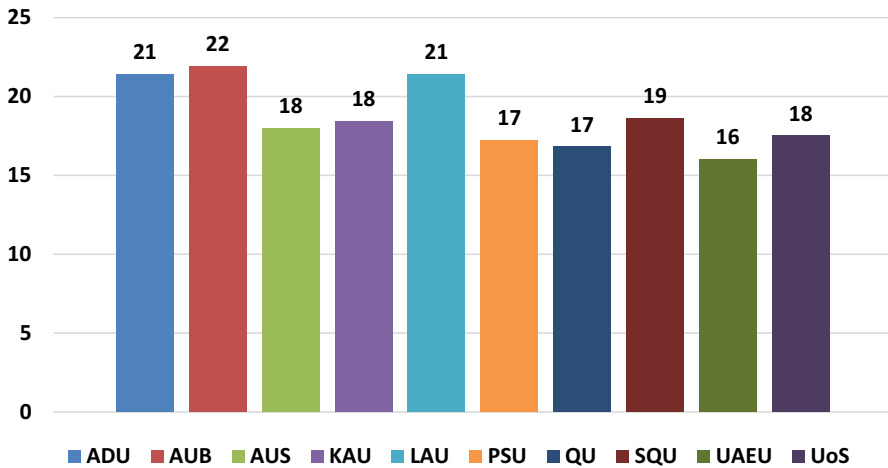
**Fig. 7** Percentage of articles published in top 10% and top 25% journals per CiteScore (average for all 30 schools = 23% and 52%, respectively). Figures in parentheses refer to the total number of articles published. *ADU* Abu Dhabi University, *AUB* American University of Beirut, *AUS* American University of Sharjah, *KAU* King Abdulaziz University, *LAU* Lebanese American University, *PSU* Prince Sultan University, *QU* Qatar University, *SQU* Sultan Qaboos University, *UAEU* United Arab Emirates University, *UOS* University of Sharjah

At the government level, several countries have implemented national structures and plans to support academic research. The United Arab Emirates, for example, appointed a federal Minister of State for Advanced Sciences, established a national Science Council, and declared a national Advanced Sciences Agenda (Al Marzouqi et al. 2019). Saudi Arabia introduced an accreditation policy that considers research output a primary criterion for university accreditation (AlMubarak 2021). Egypt grants annual Egyptian State Awards for outstanding research to promote excellence in Egyptian scholarship (Ibrahim 2020), while Qatar launched its National Vision 2030 to transform its economy into a knowledge-based one (Ben Hassen 2020).<sup>6</sup>

Figure 6 shows the percentage of articles with international collaboration for each university. Except for the business schools at Abu Dhabi University and the American University of Sharjah, all top schools are above the Arab world average of 65%. This implies that some schools must implement initiatives and incentives that facilitate international collaboration, such as inviting international scholars on campus, collaborating on research projects, organizing scholarly meetings, and encouraging faculty to attend and present their work at prestigious international conferences. As shown in Table 3 above, international collaboration is key to enhancing research visibility and impact.

Figure 7 provides insights into the number and proportion of articles published by Arab business schools in prestigious, high-impact journals. Our data reveal

<sup>6</sup> <https://www.gco.gov.qa/en/about-qatar/national-vision2030/>.



**Fig. 8** Citations per article among top 10 accredited schools (average for all 30 schools = 15.4). *ADU* Abu Dhabi University, *AUB* American University of Beirut, *AUS* American University of Sharjah, *KAU* King Abdulaziz University, *LAU* Lebanese American University, *PSU* Prince Sultan University, *QU* Qatar University, *SQU* Sultan Qaboos University, *UAEU* United Arab Emirates University, *UoS* University of Sharjah

that the American University of Beirut business school leads the way, with 75% of its articles published in the top 25% journals and 44% in the top 10% journals per CiteScore. Only two other business schools have over 60% of their articles published in the top quartile journals and over 30% published in the top 10% journals in their respective fields, including the Lebanese American University and United Arab Emirates University. The University of Sharjah ranks second in journal prestige, with 64% of articles published in the top 25% journals, but this proportion decreases to 24% in the top 10% journals.

Per Fig. 8, it is worth noting that the American University of Beirut leads in terms of citations per article (22), followed by Abu Dhabi University and the Lebanese American University (21), and Sultan Qaboos University (18). These numbers positively correlate with the percentage of articles published in top journals, indicating that the journal's prestige, visibility, and ranking affect the total number of citations an article receives. Therefore, scholars aiming to increase the impact and reach of their articles are encouraged to consistently aim high and strive to publish in journals with high CiteScores that fall within the top 10% and top 25% categories.

### 3.4 Thematic analysis of research produced by the 30 accredited schools

We utilized the VOSviewer software to analyze extensively the keywords assigned by SciVal to the 10,565 articles published by the 30 accredited schools. Our objective was to uncover the prevailing and frequently studied topics within the vast knowledge base of business research. The outcomes of our analysis

**Table 7** Distribution of articles by topic (limited to topics with more than 1% of all articles)

Research topic	Articles	Proportion of all articles (%)
Personnel	392	3.7
Innovation	387	3.7
Technology acceptance model and mobile banking/payment	321	3.0
Stock and financial markets	282	2.7
Economic growth	276	2.6
Supply chain	258	2.4
Corporate social responsibility	250	2.4
Entrepreneurship	250	2.4
Community participation	244	2.3
Oil Prices and markets	234	2.2
Social media, online reviews, and brand community	212	2.0
Corporate governance	192	1.8
Bitcoin	166	1.6
Covid-19	161	1.5
Exchange rates	158	1.5
International financial reporting standards	142	1.3
Internet of things	134	1.3
Spillover and comovement	128	1.2
Islamic banking	127	1.2
Customer loyalty and consumer satisfaction	125	1.2

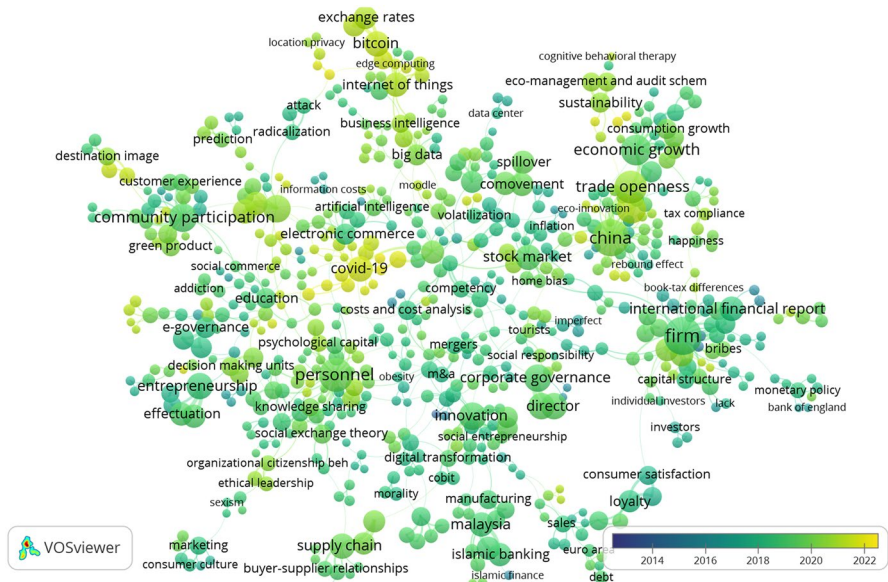
This table is based on topics assigned to each article by SciVal. Per SciVal, a topic is a dynamic collection of documents with a common focused intellectual interest. Around 96,000 topics in SciVal have been formed through direct citation linking. A publication can only belong to one topic

are presented in Table 7 and Fig. 9, which shed light on the prominent themes that have been extensively explored in business research within the Arab world. Through this comprehensive examination, we aimed to capture the pulse of the academic discourse in the region and identify the areas of greatest interest and concern among business researchers.

Like Diaz Tautiva et al. (2022), the identified themes encompass extensive topics, reflecting business researchers' diverse interests and concerns in the Arab world. These themes cover various facets of the business landscape, including personnel, innovation, and performance. Additionally, the analysis highlights the significance of topics such as the technology acceptance model and its relation to mobile banking and payment systems. Other noteworthy areas of study include stock and financial markets, economic growth, supply chain dynamics, corporate social responsibility, entrepreneurship, community participation, oil prices and markets, social media, online reviews, and brand community. Furthermore, our analysis recognizes the relevance of corporate governance, bitcoin, and the unprecedented impact of the Covid-19 pandemic on the business landscape.







**Fig. 10** Temporal overlay on a keyword co-occurrence map (with five minimum occurrences)

a temporal map to visualize the evolution of research topics (see Fig. 10). This map provides valuable insights into the interconnectedness of concepts frequently explored in the academic discourse of business research. Examining the temporal map can unravel the complex network of interrelated ideas and themes researchers are actively investigating. The findings shed light on the current state of research development and highlight the emergence of exciting topics among scholars. Figure 10 presents a temporal overlay of a keyword co-occurrence map, where the intensity of the yellow color represents the prominence of specific themes.

We have identified five main themes that stand out on the research front. These themes include Covid-19, which reflects the significant impact of the global pandemic on business and the subsequent surge in research addressing the challenges and implications of the crisis. Another prominent theme is bitcoin, indicating the growing interest in cryptocurrencies and their potential impact on various aspects of business and finance. Social media is another important theme, underscoring the recognition of the profound influence of social platforms on consumer behavior, marketing strategies, and organizational communication. Additionally, the Internet of things as a theme signifies the increasing exploration of digital interconnectedness and the implications for businesses regarding innovation, efficiency, and data management. Lastly, the environmental Kuznets curve and trade openness theme suggest a continued interest in studying the relationship between economic growth, energy, CO<sub>2</sub> emissions, and trade policies.

**Table 8** Distribution of articles by United Nations sustainable development goals

SDG number and title	Number of articles (N = 4711)	Percentage of all articles (%)
SDG 8: decent work and economic growth	1334	28
SDG 17: partnerships for the goals	1010	21
SDG 9: industry, innovation, and Infrastructure	948	20
SDG 10: reducing inequality	934	20
SDG 12: responsible consumption and production	719	15
SDG 3: good health and well-being	510	11
SDG 16: peace, justice, and strong institutions	456	10
SDG 7: affordable and clean energy	429	9
SDG 13: climate action	421	9
SDG 4: quality education	398	8
SDG 5: gender equality	260	6
SDG 1: no poverty	255	5
SDG 11: sustainable cities and communities	218	5
SDG 2: zero hunger	79	2
SDG 6: clean water and sanitation	67	1
SDG 15: life on land	44	1
SDG 14: life below water	34	1

SciVal assigns SDGs to 4711 of the 10,565 articles published by Arab world accredited business schools during 2013–2022. This table lists the number of articles relevant to each SDG, according to SciVal

Overall, the temporal map in Fig. 10 provides a comprehensive overview of the most recent research topics and themes within the 30 accredited business schools. It showcases the interconnected nature of these topics and is a valuable resource for researchers, policymakers, and practitioners seeking to stay informed about the growing and rapidly evolving research panorama in business.

### 3.5 United Nations (UN) sustainable development goals

In addition to our previous findings, we have conducted a comprehensive analysis of the distribution of articles per the United Nations (UN) sustainable development goals (SDGs), which we present in Table 8. The UN 2030 agenda and its 17 SDGs have emerged as a global framework for fostering sustainable development. Our analysis offers valuable insights into how business schools in the Arab region are aligning their research efforts with these SDGs.

The results of our analysis indicate that Arab region business schools are actively addressing several significant SDGs. Among the prominent ones, SDG 8, focusing on decent work and economic growth, emerges as a critical area of research interest. Furthermore, SDG 17, emphasizing partnerships for the goals, SDG 9, centering around industry innovation and infrastructure, SDG 10, aiming to reduce inequality,

and SDG 12, advocating responsible consumption and production, are also areas that garner considerable attention.

While certain SDGs such as SDG 1 (alleviating poverty), SDG 5 (promoting gender equality), and SDG 11 (emphasizing sustainable cities and communities) are featured in this research landscape, they are comparatively less explored within Arab world business scholarship, despite their critical importance. This observation suggests potential areas for further research and academic engagement to address these pressing development issues.

Our findings highlight that Arab world business scholars actively focus on critical development issues relevant to their respective contexts. Their research aligns with the broader mandate of the UN 2030 agenda, demonstrating a concerted effort to contribute to sustainable development within the region.

## 4 Discussion and conclusions

This study provides a compelling exploration of the trajectory of research growth among accredited business schools in the Arab world. By synthesizing the main determinants of research efficiency and success, this study offers valuable insights into the efforts made by Arab universities to establish themselves as global leaders in business education and research.

Our results demonstrate that Arab universities are making significant investments to position themselves globally. With a focus on continuously improving business education and research, these institutions are witnessing a rise in research output volume and quality. This is a promising trajectory for a region characterized by its youthful population with a growing recognition of the importance of a robust research infrastructure for sustained progress and prosperity.

Notably, business schools in Qatar and the United Arab Emirates stand out as advancing exponentially, demonstrating their commitment to research excellence. However, it is crucial to acknowledge that other nations, particularly Lebanon, face challenges due to recent turmoil, which may impact their ability to maintain a strong research legacy and model of research excellence. Therefore, our findings suggest an opportunity for aspiring Arab universities to replicate the successful models of Lebanon, Oman, Qatar, and the United Arab Emirates. This can be achieved through increased governmental and academic institutional support to foster the production and dissemination of relevant academic research.

Moreover, this study identifies key determinants of research efficiency in Arab world business schools. While some of these findings may seem intuitive, they are reinforced by detailed bibliometric analysis and scientific evidence. It is emphasized that business researchers in the Arab world should focus on publishing articles in high-impact outlets, particularly those ranked in the upper quartile. Publishing in premier journals significantly impacts citation rates, with articles in the top quartile attracting double the citations compared to those in the lower quartiles. Therefore, researchers are advised to aim for prestigious publication venues and engage in joint authorship, as these practices can yield significant rewards. Furthermore, our

findings highlight the undeniable importance of forging international collaborations, notably impacting research visibility and influence.

In addition to these significant findings, we observe an increasing improvement in the quality of research produced by accredited business schools in the Arab world, with an increasing proportion of this research being published in the top 25% and top 10% journals. This trend can be attributed to the combined efforts of governments and the impetus provided by accreditation, promoting excellence in strategic management, innovation, teaching and learning, and, very importantly, research and scholarship.

Furthermore, our findings reveal the increasing relevance of Arab world business research. The most frequently researched topics are personnel, innovation, technology acceptance model, mobile banking and payment, stock and financial markets, economic growth, supply chain, corporate social responsibility, and entrepreneurship. Additionally, community participation, oil prices and markets, social media, online reviews and brand community, corporate governance, and bitcoin are prominent topics, indicating that research generated by Arab business schools addresses areas of importance and relevance to the region. Moreover, many business publications have tackled one or more UN SDGs, particularly SDGs 8, 17, 9, 10, and 12. This demonstrates that Arab business research encompasses both local and international relevance and addresses important challenges faced by Arab countries. However, more efforts are needed to address other relevant SDGs, particularly SDGs 1, 5, and 11, which we anticipate will receive increased research attention.

While investments in quality undoubtedly yield positive outcomes in terms of citations, it is worth noting that various accredited business schools across the Arab world are making notable strides in repositioning and improving. The American University of Beirut serves as an exemplary institution renowned for its commitment to quality research and publications, enhancing its reputation as a hub for business research excellence in the region. This study underscores the importance of the continuous pursuit of higher quality, increased international collaboration, interdisciplinary research, and the implementation of incentive schemes that reward high-quality scholarship. By following this roadmap, Arab world business schools can propel research excellence to new heights.

Overall, our study provides a comprehensive overview of the research performance of the Arab world's accredited business schools, allowing them and others worldwide to benchmark their performance against their peers. This information is valuable for schools, policymakers, funding agencies, and accreditation bodies interested in evaluating and improving the research landscape. The findings should guide the strategic planning and resource allocation of business schools in the Arab region. This knowledge could help these and other schools focus on addressing specific research areas that require further exploration and development, leading to more impactful and relevant research outcomes.

Our findings highlight progress in research productivity and the increasing publications in high-impact journals among the Arab world's accredited business schools. This information should inspire these and other business schools worldwide to improve their research output and quality. Additionally, insights into factors influencing citation impact, such as co-authorship patterns, international collaborations,

and journal rankings, can guide business schools in adopting effective strategies to enhance the visibility and impact of their research.

Our research themes cover many topics that align with the UN SDGs. This connection can attract attention from a broader audience, including policymakers, practitioners, and organizations focused on sustainable development. Our findings can inform discussions on how business schools can address societal challenges and promote sustainable economic growth. Finally, our study emphasizes the importance of implementing research incentive schemes and excellence initiatives that recognize and reward high-quality research. Policymakers and academic administrators can use these insights to design and improve such programs, ensuring they effectively promote and support research excellence within business schools.

## Appendix I: List of the 30 accredited business schools in the Arab world (as of May 2023)

University name	School name	Country	Website	Yr accreditation given/extended
University of Bahrain	College of Business Administration	Bahrain	<a href="https://cob.uob.edu.bh/">https://cob.uob.edu.bh/</a>	2021
American University in Cairo	School of Business	Egypt	<a href="https://business.aucegypt.edu/">https://business.aucegypt.edu/</a>	2022 and EQUIS
Arab Academy for Science, Technology and Maritime Transport	College of Management and Technology	Egypt	<a href="https://aast.edu/en/colleges/cmt/">https://aast.edu/en/colleges/cmt/</a>	2021
Princess Sumaya University for Technology	King Talal School of Business Technology	Jordan	<a href="https://psut.edu.jo/">https://psut.edu.jo/</a>	2020
American University of Kuwait	College of Business and Economics	Kuwait	<a href="https://www.auk.edu.kw/cbe/home">https://www.auk.edu.kw/cbe/home</a>	2019
American University of the Middle East	College of Business Administration	Kuwait	<a href="https://www.aum.edu.kw/english/academics/college-of-business-administration">https://www.aum.edu.kw/english/academics/college-of-business-administration</a>	2021
Gulf University for Science and Technology	College of Business Administration	Kuwait	<a href="https://www.gust.edu.kw/colleges/business_administration">https://www.gust.edu.kw/colleges/business_administration</a>	2021
Kuwait University	College of Business Administration	Kuwait	<a href="https://cbaweb.ku.edu.kw/">https://cbaweb.ku.edu.kw/</a>	2021
American University of Beirut	Suliman S. Olayan School of Business	Lebanon	<a href="https://www.aub.edu.lb/osb/">https://www.aub.edu.lb/osb/</a>	2019
Lebanese American University	School of Business	Lebanon	<a href="https://sb.lau.edu.lb/">https://sb.lau.edu.lb/</a>	2021

University name	School name	Country	Website	Yr accreditation given/extended
Notre Dame University	Faculty of Business Administration and Economics	Lebanon	<a href="https://www.ndu.edu.lb/academics/faculty-of-business-administration-and-economics">https://www.ndu.edu.lb/academics/faculty-of-business-administration-and-economics</a>	2022
ESCA School of Management	ESCA School of Management	Morocco	<a href="https://www.esca.ma/en/">https://www.esca.ma/en/</a>	2018
International University of Rabat	Rabat Business School	Morocco	<a href="https://www.uir.ac.ma/fr/pole/rabat-business-school">https://www.uir.ac.ma/fr/pole/rabat-business-school</a>	2020
Sultan Qaboos University	College of Economics and Political Science	Oman	<a href="https://www.squ.edu.om/economics/">https://www.squ.edu.om/economics/</a>	EQUIS
Qatar University	College of Business and Economics	Qatar	<a href="https://www.qu.edu.qa/business/">https://www.qu.edu.qa/business/</a>	2020
Effat University	Effat College of Business	Saudi Arabia	<a href="https://www.effatuniversity.edu.sa/english/academics/undergraduate/cob/">https://www.effatuniversity.edu.sa/english/academics/undergraduate/cob/</a>	2021
King Abdulaziz University	Faculty of Economics and Administration	Saudi Arabia	<a href="https://fea.kau.edu.sa/">https://fea.kau.edu.sa/</a>	2020
King Fahd University of Petroleum and Minerals	KFUPM Business School	Saudi Arabia	<a href="https://kbs.kfupm.edu.sa/">https://kbs.kfupm.edu.sa/</a>	2018
King Saud University	College of Business Administration	Saudi Arabia	<a href="https://cba.ksu.edu.sa/en">https://cba.ksu.edu.sa/en</a>	2016
Prince Sultan University	College of Business Administration	Saudi Arabia	<a href="https://www.psu.edu.sa/en/CBA">https://www.psu.edu.sa/en/CBA</a>	2021
Qassim University	College of Business and Economics	Saudi Arabia	<a href="https://cbe.qu.edu.sa/">https://cbe.qu.edu.sa/</a>	2021
Abu Dhabi University	College of Business	United Arab Emirates	<a href="https://www.adu.ac.ae/study/colleges/college-of-business">https://www.adu.ac.ae/study/colleges/college-of-business</a>	2021 & EQUIS
Ajman University	College of Business Administration	United Arab Emirates	<a href="https://www.ajman.ac.ae/en/cba">https://www.ajman.ac.ae/en/cba</a>	2022
Al Ain University	College of Business	United Arab Emirates	<a href="https://business.aau.ac.ae/en/">https://business.aau.ac.ae/en/</a>	2022
American University in Dubai	School of Business Administration	United Arab Emirates	<a href="https://www.aud.edu/aud-school/school-of-business-administration/">https://www.aud.edu/aud-school/school-of-business-administration/</a>	2023

University name	School name	Country	Website	Yr accreditation given/extended
American University in the Emirates	College of Business Administration	United Arab Emirates	<a href="https://aue.ac/college-of-business-administration/">https://aue.ac/college-of-business-administration/</a>	2022
American University of Sharjah	School of Business Administration	United Arab Emirates	<a href="https://www.aus.edu/sba">https://www.aus.edu/sba</a>	2021
United Arab Emirates University	College of Business and Economics	United Arab Emirates	<a href="https://cbe.uaeu.ac.ae/en/">https://cbe.uaeu.ac.ae/en/</a>	2019
University of Dubai	Dubai Business School	United Arab Emirates	<a href="https://ud.ac.ae/academics/dubai-business-school/">https://ud.ac.ae/academics/dubai-business-school/</a>	2019
University of Sharjah	College of Business Administration	United Arab Emirates	<a href="https://www.sharjah.ac.ae/en/academics/Colleges/business/">https://www.sharjah.ac.ae/en/academics/Colleges/business/</a>	2017

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## Declarations

**Conflict of interest** The authors declare that they have no competing interests or personal relationships that could have appeared to influence the work reported in this paper.

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