

REVIEW

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# Entrepreneurial leadership, learning organization and organizational culture relationship: a systematic literature review

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## Abstract

The purpose of this study is to examine the relations between organizational culture, learning organizations, and entrepreneurial leadership. The study concentrated on how organizational culture, learning organizations, and entrepreneurial leadership are measured in the literature. The study used a systematic literature review methodology analysis that was published in reputable and peer-reviewed English research journals to look at how organizational culture, learning organizations, and entrepreneurial leadership are related to one another. The study used content analysis on 27 peer-reviewed journal articles that were discovered in various journals examined in the databases, which was based on a systematic examination of the literature. This study offers a comprehensive view of entrepreneurial leadership that has been linked to learning organizations and organizations in various enterprises and nations. The study looked at research approaches, sample sizes, data gathering tools, implications, and limits from the body of literature. The study is also one of the first of its kind to review the research on the connection between entrepreneurial leadership, learning organizations, and organizational culture. The outcomes of this study help the scientific community underline the connection between entrepreneurial leadership, learning organizations, and organizational culture for upcoming policy makers.

**Keywords:** Entrepreneurial leadership, Learning organization, Organizational culture

## Introduction

The relationship between leadership behavioral approach and learning organizational skills and organizational competencies is demonstrated by a relational model, which creates an experimental foundation for the advancement of institutional learning and a further improvement in the future (Tong, 2020). Modern businesses should give entrepreneurial leaders, learning cultures, and organizational learning processes serious consideration if they want to maintain their competitive advantage over other business institutions, meet the needs of the community and the market, attract enthusiastic and high-achieving open-minded leaders, and help solve problems (Abbasi & Zamani-Miandashti, 2013). Even though they have a wealth of resources, the non-modern cultural institutions have a lot of historical problems, which have somehow

prevented them from being inventive and taking more chances. According to some evidence, non-modern organizations have made efforts to participate in new organizational contexts (Chan et al., 2020).

Entrepreneurial leaders actively benefit from their institutions and exploit them, and they also influence their supporters by setting an excellent example. They focus supporters' attention on entrepreneurial goals and inspire them to follow their ambition. Despite the fact that it is focused on the qualities and behaviors of leaders that might support entrepreneurial behaviors, entrepreneurial leadership is distinct from a more general transformational leadership style. However, the two leadership philosophies have certain similarities when it comes to fostering intellectual growth (Renko et al., 2015).

According to (Harrison & Roomi, 2011), creating standardized skills that aid in balancing innovativeness, risk-taking behavior, and the capacity to utilize scarce resources effectively and efficiently helps integrate, achieveability, and care for specific qualities of entrepreneurial teams. In order to become proficient in taking advantage of opportunities, retaining their teams' core capabilities for pursuing innovation, and obtaining competitive advantage, learning these broad and specialized concepts concurrently in socially engaging, reflective, and experiential methods is helpful.

The popularity of entrepreneurial leadership, on the other hand, has increased to enhance the performance of innovative leadership since it is a differentiating style of leadership that is necessary for handling difficult problems involving current institutional arrangements. But there was no research on how entrepreneurial leadership techniques of institutional leaders affected innovative mentality (Akmaliah et al., 2014). In addition, a thorough definition of entrepreneurial leadership is constructed, which in turn provides the foundation for evidence-based characteristics of its occurrence and its evaluation from a cross-cultural perspective. The creation of theories about how entrepreneurial leadership influences the process of innovation and opportunity hunting is improved by illustrating the scope of entrepreneurial leadership (Bagheri & Harrison, 2020).

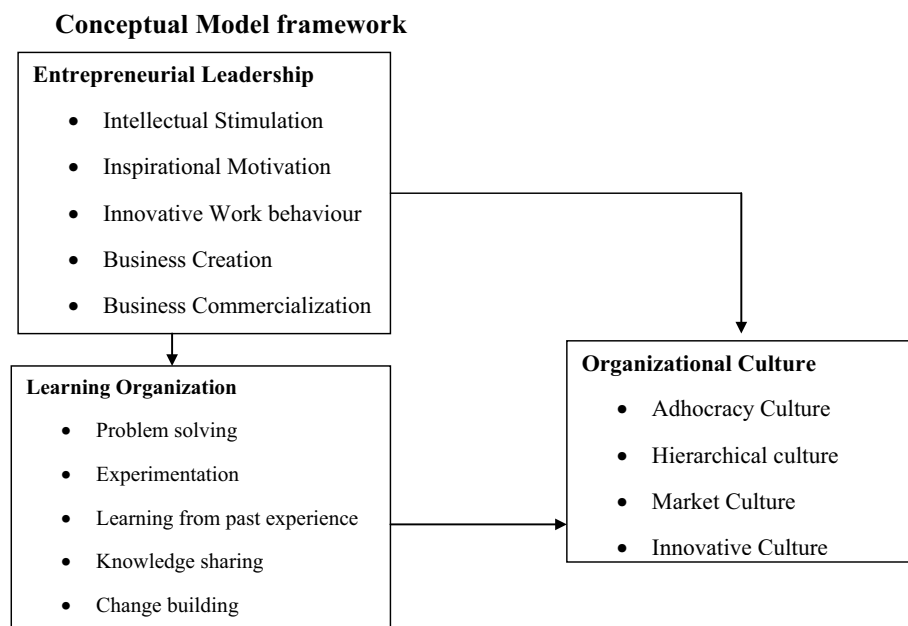
Compared to other leadership philosophies, entrepreneurial work appears to be more strongly influenced by leadership styles, and opportunities for entrepreneurship endeavors are even more strongly influenced. One significant category of strategic innovator is the entrepreneur. A crucial step for the development of business sectors is for executives in various organizational situations to adopt an entrepreneurial attitude (Felix et al., 2019).

Understanding the influence of organizational culture on institutional-level entrepreneurial orientation based on the fundamentals of organizational theory development. Entrepreneurship experts have emphasized the value of entrepreneurial orientation for organizations, but the role that organizational culture plays in fostering the predominance of entrepreneurial orientation has not been thoroughly examined. Critical problems include taking into account how the two primary organizational culture aspects of individuality and collectivism might support entrepreneurial orientations in order to promote and contribute to this new study topic (Lee et al., 2019). Therefore, this study examines the relationship between entrepreneurial leadership, learning organization, and organizational culture in different study contexts.

### Conceptual model

The concept of entrepreneurial leadership has received increasing interest in recent years. Notwithstanding the growing body of literature from both empirical and conceptual standpoints (Harrison et al., 2018). In entrepreneurial teams, while sharing leadership, cofounders share competencies, roles, vision, stress, and decision-making. The study also reveals various individual and team-level factors which facilitate shared leadership and its outcomes (Lyndon & Pandey, 2020). The study also explains the mechanism through which a firm's innovative environment mediates the relationship between entrepreneurial leadership and employees' innovative work behavior (Li et al., 2020). The mediating role of self-leadership in the relationship between participants' perceptions of entrepreneurial orientation and innovative work behavior (Kör, 2016). A complex analysis of the leadership style preferences of university students combined with their managerial and entrepreneurial inclination, and social and cultural resources is rare in the research practice so far (Perpék et al., 2021). The time has come for Palestinian higher education institutes to follow the emerging trend of offering formal entrepreneurship courses and programs. It is for sure, it will be an essential step to provide the community with entrepreneurs and self-employers who will create jobs and thus boost the economic situation (Arafeh, 2015). The results show that all types of leadership considered in the study have a relevant effect on entrepreneurial activity, particularly on opportunity entrepreneurship (Felix et al., 2019). Practicing entrepreneurial behaviors, managers can enhance employees' affective commitment, creative self-efficacy, and psychological safety (Iqbal et al., 2022). The study found that in entrepreneurial teams while sharing leadership, cofounders share competencies, roles, vision, stress, and decision-making. The study also reveals various individual and team-level factors which facilitate shared leadership and its outcomes (Lyndon & Pandey, 2020). The critical role that school leaders' entrepreneurial approaches play in school innovativeness improvement highlights the urgent need for improving school principals' knowledge and competence in practicing entrepreneurial leadership to bring more innovation (Akmaliah et al., 2014).

According to (Wolfe & Dilworth, 2015), examining organizational culture context through group relations. In their study, they emphasized the connections between entrepreneurial leadership, learning organizations, and organizational culture in different institutional settings. To study the influence of different entrepreneurial psychological leadership styles on organizational learning ability and organizational performance and to provide a theoretical basis for the improvement of organizational benefits of entrepreneurial enterprises in the future (Tong, 2020). The complex and idiosyncratic relationship between culture and entrepreneurial leadership (Tian et al., 2018). On the other hand (Alharbi, 2021), provides important information to the academic community because there are no further studies on this topic as a reference. According to (Renko et al., 2015), entrepreneurial leadership and organizational culture have a relationship in promoting opportunity recognition and exploitation through influencing others. Practitioners apply the combined model of the reflective practitioner and learning organization as this helps innovative leadership (Oeij et al., 2017). After critically reviewing relevant literature the following conceptual model (Fig. 1) was developed.



**Fig. 1** Conceptual framework. Source: Own elaboration, 2022

### Conceptual model framework

This study was designed to use a systematic literature review, the researcher selected published peer-reviewed Scopus-indexed journal articles that deal with the relationship between entrepreneurial leadership, learning organizations, and organizational cultures.

This study proposed to answer the following critical questions.

1. How are the relationship between entrepreneurial leadership, learning organizations, and organizational culture evaluated?
2. What types of research instruments have been used in those articles to collect data?
3. In which databases were journal articles of scholars published?
4. What are the research samples covered by the current literature?
5. What are some of the entrepreneurial leadership, learning organization, and organizational culture areas that future studies should be focusing on?

### Research methods and coding

#### Study design

The association between entrepreneurial leadership, learning organizations, and organizational culture was determined by the study through the use of systematic reviews of the literature. With its advantages over narrative and meta-analysis, the researcher favored the systematic review of the literature. Systematic literature reviews differ from narrative reviews in that they present a reliable, trustworthy, scientific, and open procedure to decrease study bias through thorough critical literature searches (De Menezes & Kelliher, 2011).

The majority of the publications in this review ( $n=14$ ) were quantitative, four used the systematic review approach, and only six designed their investigations qualitatively. There were 27 articles total in this review. The remaining three ( $n=3$ ) used a mixed-methods strategy.

### Data collection

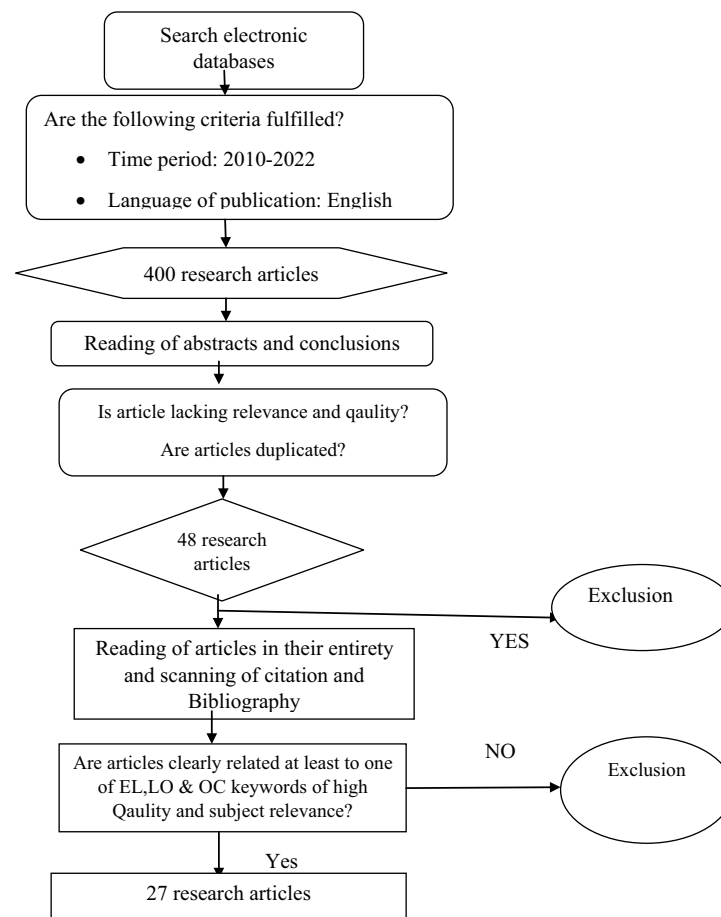
A review approach that followed the procedures in the PRISMA framework 2020 for conducting systematic reviews was used to conduct the study review. This makes it possible to coordinate and arrange the data collection process accurately for the remainder of the review process (Fig. 2).

### Data collection process

#### Selection of databases

The study employed a three-step procedure to identify pertinent scholarly articles. First of all, we selected major business/social sciences databases indexed with SCOPUS (Springer, JSTOR, Tayler, Francis, Emerald insights, Sage). Google Scholar was used

### Data Collection Process



**Fig. 2** Data Collection Process. Source: Own construction based on McKenzie et al. (2020)

to search some published articles that were not included in any mentioned databases above. Further, the research emphasizes the relationship between Entrepreneurial leadership, learning organizations, and Organizational Culture. Thus, the selection of the databases is mainly based on the variables indicated in the topic (Entrepreneurial leadership, Organizational learning, and Organizational culture) through evaluating each article downloaded using different methods of systematic literature review. Hence issues of using SCOPUS or Web of Science for the selection of articles were not as demanding for this study since it is possible to use through inclusion or exclusion criteria.

#### **Inclusion and exclusion criteria**

The study was conducted based on inclusion and exclusion criteria. The inclusion criteria consist of search boundary, year of publication, language, and search terms. The search boundary focused on peer-reviewed and reputable journals of Social sciences, leadership, and management, Journal of Entrepreneurship and Organizational culture. Research articles published from 2010 to 2022 were included in the search. The year 2010 was used as a base of the earliest date of interest because, in that year, hoping that many publications made emphasized issues of Entrepreneurial leadership, learning organization, and organizational culture. The search for studies was limited to English-language articles. The study used search engines using the Boolean technique and using search terms on “Entrepreneurial leadership,” Innovative leadership,” “Entrepreneurial orientation,” “learning organization,” “organizational learning,” and “organizational culture”.

The exclusion criteria include relevance, quality, and duplication. It was done through critical reading of abstracts and conclusions of downloaded articles from several databases. The relevance was determined by deciding whether articles fit a keyword used as a search string and to ensure the quality, the study excluded unpublished articles, book reviews, Miscellaneous, Books, Working paper series, and Conference papers to enhance the findings from this review. Duplicated articles were excluded by assigning ID codes for each article and manual detection. Finally, the researcher carefully screened articles; after checking and deleting duplicates, we created a publication pool with 400 articles. We screened these articles by using several inclusion/exclusion criteria. A total of 27 articles met the inclusion and exclusion criteria. The review procedure enables the study to create a systematic, trustable, replicable, and transparent method of data collection and analysis of the paper followed during article selection for a systematic review of the literature selection process was organized.

#### **Data analysis**

We employed a data analysis strategy that combined descriptive and content analysis in respect to review questions that were established at the beginning of the review phases. Utilizing the data mining form's categories, the descriptive analysis was carried out. To do this, the review matrix was tabulated, especially for the discussion of research features findings utilizing points such databases, kind (conceptual, empirical, or review), and level of analysis. In the section that follows, the reader is given a brief overview of the examined publications in this study thanks to the descriptive analysis that supports the study characteristics sub-section. As a method of data analysis, content analysis was also employed. In the publications, encoding concerns were addressed, and the analysis

of the outcomes utilized an interpretive method. We used to analyze the results of the study manually.

## Results and discussion

This study adopted a systematic review examining research topics related to entrepreneurial leadership, learning organization, and organizational culture relationship. Besides, the current study targeted to investigate the appropriate methods of organizing data using a review matrix table. To achieve these deliverables of the study, descriptive and content analysis methods were used to reach the conclusion, recommendation, and future research.

### Study characteristics

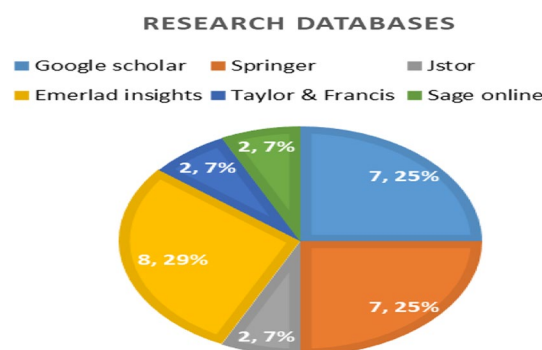
The study characteristics are used to provide insights to the academic community or any other readers with a brief introduction regarding the reviewed articles, the study used points such as databases, type (conceptual, empirical, or review), and level of analysis as study characteristics as follows. Figure 3 shows the pie chart showing the databases used to search articles for systematic review. The result is presented as follows.

### Types of research databases

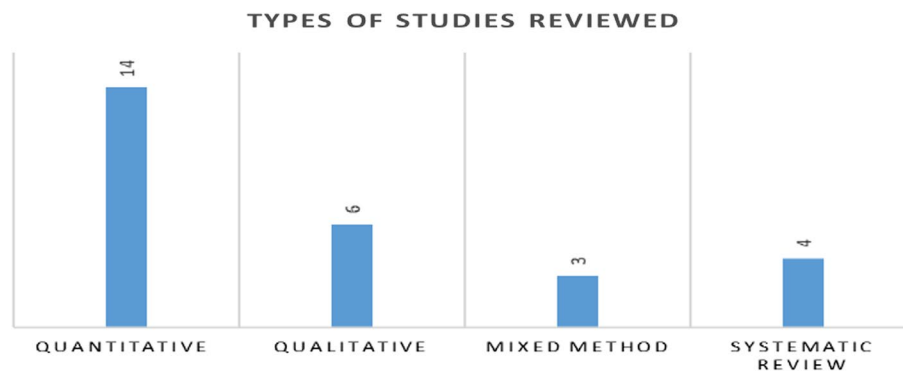
As a result, one-third of the research articles examined for this study's purposes were categorized under the Emerald Insights research database, as shown in Fig. 3. On the other hand, 14 (or 50%) of those databases' accesses came from both the Springer and Google Scholar databases. As opposed to this, 7% (or a total of 21%) of the articles assessed came from Sage Online, JSTOR, and Taylor & Francis. This suggests that the Emerald insights research database accounted for 8 (29%) of the research articles that were consulted for the study.

### Types of study reviewed

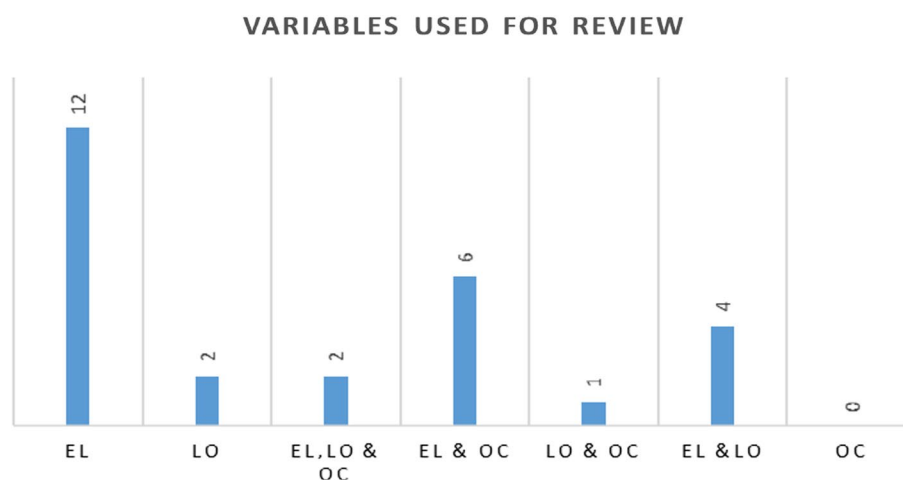
Based on the several study types that were reviewed for this study's objectives, Fig. 4 explains the study that was reviewed. The graph illustrates how many of the 27 publications employed one of the many research methods grouped above for ease of reference. In those articles, 14 quantitative research approaches (52%) were used in the bulk of the investigations. The majority of the examined publications, however, used a



**Fig. 3** Types of a research database. Source: Own construction, 2022



**Fig. 4** Studies reviewed. Source: Own construction, 2022



**Fig. 5** Types of Variables Reviewed. Source: Own construction, 2022

mixed-method approach 3 (11%) and a systematic literature review 4 (15%), while some reviewed articles, 6 (22%), used a qualitative research strategy in their studies. As a result, it can be concluded that the majority of the papers analyzed for this study used quantitative research methods.

#### Level of analysis for variables

Figure 5 displays a total of 27 publications on entrepreneurial leadership (EL), learning organizations (LO), and organizational culture (OC) that were located in English journal papers in the business, management, leadership, administration, and education domains. Out of the 27 papers analyzed, 12 (or 44%) addressed entrepreneurial leadership, 2 (or 7%) addressed learning organizations, and none addressed organizational culture alone. Additionally, out of the 27 articles reviewed, 2 (7% of them) specifically addressed the relationship between entrepreneurial leadership, learning organizations, and organizational culture, while 6 (22%) of the articles reviewed concentrated on the connection between entrepreneurial leadership and organizational culture.

In addition, 1 (4%) of the publications evaluated focused on the connection between organizational culture and learning organizations, while 4 (15%) of the articles reviewed discussed entrepreneurial leadership and learning organizations. According to the data,



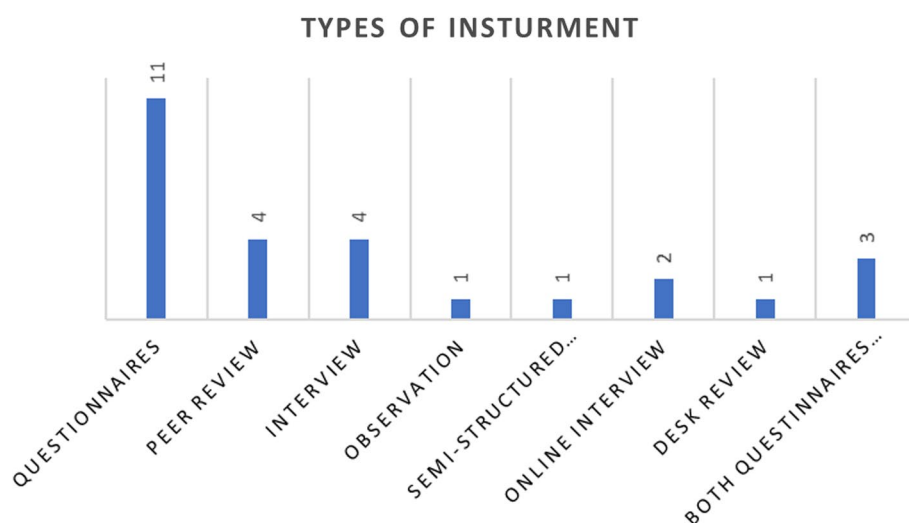
fewer academics have looked into the connection between entrepreneurial leadership, learning organizations, and organizational culture. The analysis only showed how many students combined the three factors of entrepreneurial leadership, learning organizations, and organizational culture in their research. On the other hand, no researcher in the literature chosen for this study addressed the relationship or connection between organizational culture and learning organizations or entrepreneurial leadership. Using several methods for conducting a systematic literature review, we chose articles from among 400 publications that were relevant to the topic. Even for performing a thorough literature study, the majority of scholars only employ one or two publications. In comparison to other systematic literature reviews that have already been done, the 27 papers that were chosen were sufficient for the study.

### Types of instrument deployed

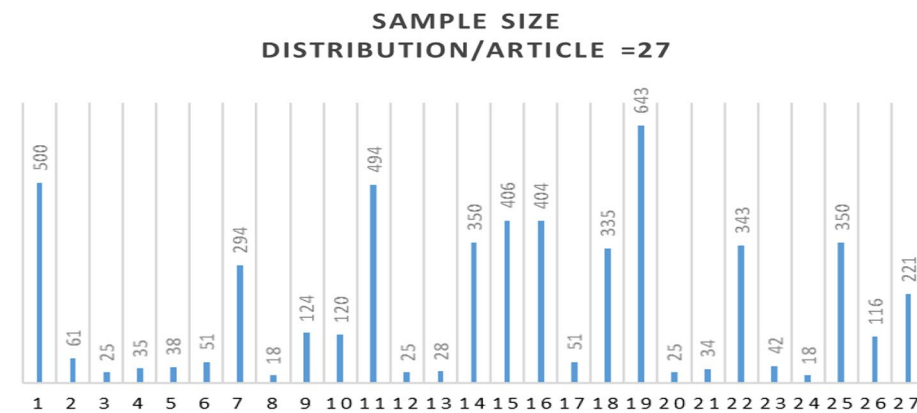
Figure 6 shows the various data gathering tools that were employed in the publications under examination. Out of the 27 publications that were reviewed, 11 (41%) used questionnaires, 4 (15%) peer reviews, 4 (15%) interviews, observation 1 (4%), semi-structured interview, online interview 2 (7%), and both questionnaires and interview 3 (11%) interviews. As a result, questionnaires were the primary data collection tools used in the majority of the studies analyzed for this study.

### Sample size distribution

The sample size distribution of the reviewed publications across 27 different journal articles is displayed in Fig. 7. The majority of the 12 scholars' articles that were reviewed for research articles fall between 15 and 100; 3 journal articles were reviewed between 100 and 200; 2 journal articles were reviewed between 200 and 300; 4 research articles were reviewed between 300 and 400; and 3 research articles were reviewed between 400 and 500. The sample size range employed in the two research studies that were reviewed is between 500 and 600 and 600 and 700. Consequently, references and reviews from



**Fig. 6** Data collection instruments. Source: Own construction, 2022



**Fig. 7** Sample size per article reviewed. Source: Own construction, 2022

studies with various sample sizes were used in this investigation. Accordingly, accuracy and representativeness should rise as sample size does.

#### Organizing data

Using a review matrix according to (Garrard, n.d.) Guiding procedures. This matrix is used to extract information from the literature and organize it effectively and efficiently. The purpose of the main research question was to find what types of entrepreneurial leadership were associated with learning organization and organizational culture by scholars, and how they were examined through abstracted publication year, authors, methodology/methods, Purpose of the study, instruments, journal titles, main findings, implications and limitations from all 27 articles (See Table 1).

#### Organizing data based on Garrard Review Matrix

#### Discussions

Entrepreneurial leadership innovation-oriented organizations have a strong influence on learning organizations and advancement in today's organizations. Different types of leadership are conducive to building a learning organization. Specifically, understanding how and which entrepreneurial leadership style relates to learning organizations by investigating a structural model of different concepts (Xie, 2020). Recently evaluating organizational learning and organizational culture as the foundation for knowledge-driven innovative leadership, Argote and Miron-Spektor (2011) proposed a novel theoretical framework relating to cognitive and social aspects. There is some literature on the subject of the connection between organizational culture and leadership that is entrepreneurially oriented provided by some academics who have studied both of these topics (Lee et al., 2019). Entrepreneurial leadership is frequently hampered by the effect of corporate culture (Engelen et al., 2014).

The relationship between entrepreneurial leadership theory, corporate culture, and learning organizational abilities, on the other hand. The development of organizational skills and entrepreneurial attitude are also positively correlated (Altinay et al., 2016). Organizational culture and learning structures are both impacted by entrepreneurial leadership, and both have an impact on creativity. The impact of these factors on the

**Table 1** Summary of findings of previous studies

Author (s)/ Year	Title/Journal	Purpose of study/ research setting or intervention	Type of study/ methodological design	Instrument	Type of entrepreneurial leadership	Learning organization	Type of organizational culture	Main findings	Implications	Limitation
Wolfe and Dilworth (2015)	Transitioning Normalcy: Organizational Culture Google Scholar	Examining concepts of diversity leadership	Qualitative/ meta-synthesis	Literature review of articles, books, research reports of (n = 500)	Entrepreneurial leadership	Examining cultural context through group relations	Collective understanding	Inclusion of minority experiences shape the recruitment and retention	Scholars should continue research diversity leadership in higher education	Nothing mentioned
Tian et al. (2018)	How does culture influence innovation? Systematic, Emerald insight	Analysing the impact of culture on innovation	Quantitative	Systematic review (n = 61) primary studies on innovation, and organizational culture	Innovative Leadership	–	Organizational culture and national culture	Highlight the complex and idiosyncratic relationship between culture and innovation	Managers, academia, and business practitioners	Inevitably missing some empirical studies and meta-analysis
Alharbi (2021)	Leadership: A Literature Review Paper. Sage online	The paper aims to review the innovative leadership style	Systematic literature review from qualitative researches	Primary review (n = 25)	Value added and exploratory innovation	–	Organizational innovation	Providing excellent information to academic community	Crucial for all organizations that intend to remain competitive	Narrow focus only one institution
Abbasi and Zamani-Mandasthi (2013)	The role of transnational leadership, organizational culture and organizational learning. Springer	To investigate the role of transnational leadership, organizational culture and organizational learning	Quantitative	Systematic review (n = 25)		Error accepting and innovative learning	Application of knowledge, creation, dissemination and acquisition of knowledge	Transformational leadership and learning culture with the effect	Transformational leadership, learning culture and organizational learning processes	Risk of a response bias, used single informants and only considered two factors

**Table 1** (continued)

Author (s)/ Year	Title/Journal	Purpose of study/ research setting or intervention	Type of study/ methodological design	Instrument	Type of entrepreneurial leadership	Learning organization	Type of organizational culture	Main findings	Implications	Limitation
Renko et al. (2015)	Understanding and Measuring Entrepreneurial Leadership Style. Google Scholar	The construct of entrepre- neurial leader- ship	Mixed approach (Deductive induc- tive approach)	Survey Question- naires (n = 381)	Entrepreneurial leadership style		Promoting opportunity recognition	Entrepreneurial leaders focus on promoting opportunity recognition and exploita- tion	Adopting entrepreneur- ial leadership practice used for company managers	Reliance on single-informant data at a single point of time
Harrison and Roomi (2011)	Entrepreneurial Leadership: what is it and how should it be taught? Google	Relevance of leadership in entrepreneur- ship education	Mixed method approach	Questionnaires (n = 51)	Entrepreneurial education HEI in UK	–	–	Make recom- mendations for the design of teaching materials	In order for entrepreneurs to be effective they need to feel	This is not a rig- orous analysis
Akmaliah et al. (2014)	Entrepreneurial leadership practices and school innova- tiveness Jstor	The study aimed to identify the relationship between school principals' entrepreneurial leadership practices	Quantitative approach	Self-adminis- tered Question- naires (n = 294)	Entrepreneurial leadership at school level	–	–	A significant correlation between teachers perceptions of school princi- pals' innova- tiveness	Develop- ing school principals' entrepreneur- ial leadership and school innovativeness	School principals' entrepreneurial leadership
Oej et al., (2017)	Leadership in innovation pro- jects. Journal Springer	To demon- strate that Donald Schön's Reflective Practitioner	Qualitative approach	Interview (n = 18)	–	Reflective learn- ing style	–	The authors' suggestion for practitioners is applying the combined model of the reflective	The combined research and learning model can support project team members	Methodological

**Table 1** (continued)

Author (s)/ Year	Title/Journal	Purpose of study/ research setting or intervention	Type of study/ methodological design	Instrument	Type of entrepreneurial leadership	Learning organization	Type of organizational culture	Main findings	Implications	Limitation
Bagheri and Harrison (2020)	Entrepreneurial leadership measurement: a multi-dimen- sional con- struct. Emerald Insight	To refine our understanding of entre- preneurial leadership by developing a multi-dimen- sional measure for	Quantitative approach	Questionnaires (n = 124)	Competencies expected of entrepreneurial leaders	–	–	This study pro- vides the skills, competencies and specific behaviour of entrepreneurial leaders	This study assists the development of theories on how entrepre- neurial leader- ship influence	This analysis is limited to developing a measure for entrepreneurial leadership
Kiyabo and Isaga (2020)	Entrepreneurial orientation, competitive advantage, and SMEs' performance: Springer	Determining the influence of entrepreneurial orientation on SMEs' perfor- mance	Quantitative	Questionnaires (n = 120)	Entrepreneurial orientation	–	–	Firm owners- managers ought to invest not only in physical resources but also in intan- gible	Inform that the resource-based view is suitable to explain not only physical resources	The findings cannot be gen- eralized beyond the welding industry
Tong (2020)	The Influence of Entre- preneurial Psychological Leadership Style	The influence of different entrepreneurial psychological	Quantitative/ Multiple linear regression	Questionnaires (n = 494)	Entrepreneurial psychology	Open minded and commit- ment type	Organizational performance	Their relation- ship between leadership style and organization	The results show that transforma- tional psychol- ogy	Methodological
Chan et al. (2020)	Entrepreneurial orientation of traditional and modern cultural organi- sations: Taylor & Francis	Examines how innovation culture is inculcated and embedded within two local organisations	Qualitative approach	In-depth inter- views	Entrepreneurial Orientation	–	Modern culture	Modern and newer cultural and creative organizations k	In addition, personal psychological traits of the managers might also influence	It is deemed insufficient to propose any generalizable conclusion on the EO

**Table 1** (continued)

Author (s)/ Year	Title/Journal	Purpose of study/ research setting or intervention	Type of study/ methodological design	Instrument	Type of entrepreneurial leadership	Learning organization	Type of organizational culture	Main findings	Implications	Limitation
Argote and Miron-Spektor (2011)	Organizational Learning: From Experience to Knowledge. Jstor Journal	To provide a theoretical framework for analysing organizational learning	Qualitative approach	Observation	–	Organizational learning	–	–	Organizational learning improvement	Narrow focus only theoret- ical framework building
Li et al. (2020)	Impact of Entrepreneurial Leadership on Innovative Work Behavior: Google Scholar	Aimed to explore the impact of entrepreneurial leadership on employees' innovative work	Quantitative approach	Questionnaires (n = 350)	Entrepreneurial leadership on work behaviour innovativeness	–	–	A significant positive effect of entre- preneurial leadership on employees' innovative work	Managers and leaders to improve their innovation style	Methodological limitation (cross- sectional) Measurement scale
Lee et al. (2019)	Organisational culture and entrepreneurial orientation: Google Scholar	Examine the relationship between culture and entrepreneur- ship	Quantitative approach	Questionnaires (n = 406)	Entrepreneurial orientation	–	Organisational culture	–	Building upon the precepts of institutional theory	The use of single source data –
Kör (2016)	The mediat- ing effects of self-leadership on perceived entrepreneurial orientation. Springer	Examining the mediating role of self-leader- ship	Quantitative approach	Questionnaires (n = 404)	Self-leadership based on entrepreneurial orientations	–	–	Participants' perceptions about high levels of entrepreneurial orientation	For practition- ers in the banking sector to facilitate innovative work behavior	Self-reported data from a sin- gle source may pose potential problems

**Table 1** (continued)

Author (s)/ Year	Title/Journal	Purpose of study/ research setting or intervention	Type of study/ methodological design	Instrument	Type of entrepreneurial leadership	Learning organization	Type of organizational culture	Main findings	Implications	Limitation
Harrison et al. (2018)	Entrepreneurial leadership in a developing economy. Emerald	To examine entrepreneurial leadership and to determine the entrepreneurial	Qualitative approach	Semi-structured Interview (n = 51)	Entrepreneurial leadership	–	–	Show the factors and conditions necessary for entrepreneurial leadership	Theory and practice	Sample size (small size used) Methodological
Perpék et al. (2021)	Preferred leadership style, managerial and entrepreneurial inclination. Springer	Study was to use the database of a 2018 online survey to first identify the leadership styles	Quantitative approach	Online questionnaires (n = 335)	Entrepreneurial inclination and managerial	–	–	Managerial inclination is related to the transformational style of leadership, entrepreneurial aspirations	Used for theory and practices	Methodology data collection method
Engelen et al. (2014)	The Effect of Organizational Culture on Entrepreneurial Orientation: Google Scholar	The present research is to determine to what degree EO is rooted in organizational culture	Quantitative approach	Questionnaires (n = 643)	Firm's entrepreneurial orientation	–	organizational culture	Organizational culture is generally a barrier to entrepreneurial orientation	Contributes to the literature on entrepreneurial orientation	The theoretical model was empirically tested by survey data from only two countries
Arafah (2015)	An entrepreneurial key competencies' model. Springer	The paper reviews the culture of entrepreneurship and entrepreneurial competencies	Desk review	Soft computing approach	Entrepreneurial model	–	–	Proposed to judge or evaluate the quality of the obtained entrepreneurial competencies	The potential, adequacy, and suitability of the soft computing approach	Validating such models against benchmarked realistic data

**Table 1** (continued)

Author (s)/ Year	Title/Journal	Purpose of study/ research setting or intervention	Type of study/ methodological design	Instrument	Type of entrepreneurial leadership	Learning organization	Type of organizational culture	Main findings	Implications	Limitation
Felix et al. (2019)	Leadership as a driver of entrepreneur- ship. Emerald	Analyses the relationship between leadership and entrepreneur- ship	Mixed approach	Comparative entrepreneurship research (n = 34 countries)	Leadership as a driver entrepre- neurship	–	–	Covers a gap in the cross-cul- tural evidence presented in the literature	Can be drawn for business and education	Impact of Lead- ership Country level
Iqbal et al. (2022)	Entrepreneurial leadership and employee innovative behavior: Emer- ald insight	To determine the relation- ship between entrepreneurial leadership and employee innovative behavior	Quantitative	Interview & Questionnaires (n = 343)	Entrepreneurial leadership and employee inno- vative behavior	–	–	Strongly and positively related to employee innovative behavior	Managers can enhance employees' affective commitment, creative self- efficacy	Self-report measure of inno- vative behavior
Xie (2020)	Leadership and organizational learning cul- ture. Emerald	To investigate how the relationship between leadership and organizational learning	Systematic literature review analyses	Peer reviewed Journal of (n = 42)	Entrepreneurial leadership	Organizational learning	–	A holistic view of the types of leaderships	An increasing trend of more research on the associa- tion between leadership and olc	Concentrated on few leadership style
Lyndon and Pandey (2020)	Shared leadership in entrepreneurial teams. Emerald insight	To unravel the underpin- nings of the phenomenon of shared lead- ership	Qualitative approach	In depth inter- view (n = 18)	Entrepreneurial teams through shared leadership	–	–	Team composi- tion influenced leadership dynamics	Important insights for the investors	Methodologi- cal (qualitative approach only)



**Table 1** (continued)

Author (s)/ Year	Title/Journal	Purpose of study/ research setting or intervention	Type of study/ methodological design	Instrument	Type of entrepreneurial leadership	Learning organization	Type of organizational culture	Main findings	Implications	Limitation
Altinay et al. (2016)	The Interface between Organizational Learning Capabilities, Entrepreneurial Orientation. Google Scholar	Investigates the interface between organizational learning capability, entrepreneurial orientation (EO)	Quantitative	Questionnaires (n = 350)	Entrepreneurial Orientation	Organization learning	–	A positive relationship between eo and sales and market share growth	Contributes to the small business management literature	Methodological limitation
Gil et al. (2018)	The effect of leader- ship in the development of innovation capacity Emerald	to analyse the impact of leadership on culture and on the structure of learning	Quantitative approach	Ad hoc question- naires (n = 116)	Innovation Capacity	Learning organization perspectives	–	Leadership affects culture and learning structure, and both impact on the innova- tion capacity	Essential in improving organisational development	Sample size Methodology
Zhu et al. (2019)	Integrating organizational learning with high-perfor- mance work system and entrepreneurial orientation. Springer	to investigate the relation- ship between organizational learning and firm perfor- mance	Quantitative approach	Online Survey and on site questionnaires (n = 221)	Entrepreneurial orientation	Organizational learning	–	Reveals the significance of innovation and entrepreneur- ship	Offers several implications for practice	The data of this study are cross- sectional

innovation potential of educational organizations, as well as the function of leadership in the creation of innovation-friendly environments, are both proven (Gil et al., 2018).

#### **Implications for future practices**

The study depicted that the current literature deals with the relationship between entrepreneurial leadership, learning organization, and organizational culture. Hopefully, there is an increasing interest and trends for more research on the link between entrepreneurial leadership, learning organization, and organization culture, there is no indication that a more diverse inclusion of different entrepreneurial leadership types and learning organizations concerning organizational culture will be a target of the scientific community. Moreover, the concepts of entrepreneurial leadership, learning organization, and organizational culture link or relationship are less investigated and still demand to be clarified when studying their relationship with one another or other institutional performance in general. Thus, much more research will be required to investigate how entrepreneurial leadership, learning organization, and organizational culture affect institutional performance in different environmental settings. This review of evidence from a total of 27 research articles accessed only three or four research scholars focused on entrepreneurial leadership, learning organization, and organizational culture.

#### **Limitations and future research**

This study, like all others, has several limitations that must be taken into account when interpreting the findings. For instance, we only acquired a little amount of insight into a few pieces that had been published for almost 12 years, which may have been one of our limitations. In light of this, we need to think about additional years in the future by interested researchers. The sample size for this study, which was 27 research publications, is likely another drawback. However, this might be rectified by reading more review articles through interested scholars in the future. The succeeding researchers who are invested in their interest in entrepreneurial leadership or innovative leadership techniques in learning organizations and organizational culture have a significant influence on the findings of this review. A leader who supports the overall organizational working environment should establish a learning organization and a dynamic organizational culture, according to the study's implications.

Additionally, this study suggests that leaders and senior management at a firm level encourage learning organizational practices in relation to organizational goals and vision. A business leader can implement organizational design or rules that support learning and organizational culture. Additionally, systems thinking and the overarching corporate vision should be used while implementing organizational learning and best practices. Future research will specifically examine the following research issues: how does entrepreneurial leadership affect a learning organization, determinants of organizational culture and learning organization towards innovative leadership, factors influencing entrepreneurial leadership through organizational culture.

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**Author contributions**

RMS, ZAB and SZW oversaw the entire process, from literature selection and search to report preparation and policy implications. The authors contributed to all investigational efforts related to the study, as well as report writing and changes based on reviewer comments. Finally, before publication, all authors read comments and made modifications to the final version.

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**Availability of data and materials**

The authors are ready to share the data at any time.

**Declarations****Competing interests**

The authors declare there are no competing interests regarding this study.

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