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HIGHER EDUCATION | RESEARCH ARTICLE



Caring leadership as a leading factor in cultivating the research culture: Evidence from Islamic higher education

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ABSTRACT

This study highlights how caring leadership holds significant potential in making Islamic higher education institutions successful and outstanding research. Employing a qualitative descriptive approach, data were collected through in-depth interviews, participatory observations, and document analysis. The research participants consisted of 10 individuals selected using criterion-based sampling, all of whom had direct experience with the phenomenon under investigation. Furthermore, using descriptive qualitative analysis, the analysis process encompasses data collection, data reduction, data display, and conclusion drawing. The findings reveal that caring leadership enhances research enthusiasm and performance within higher education institutions. Additionally, it supports the research process, fosters a conducive academic atmosphere, aids in cultivating a research-friendly environment, thereby augmenting institutional reputation and research quality, driving transformation toward excellence and international recognition. This evidence further substantiates that caring leadership within higher education institutions nurtures a research-oriented culture. Such transformation underscores the necessity of caring leadership in achieving these goals.

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SUBJECTS

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Introduction

Leadership plays a pivotal role in shaping the institutional culture, fostering academic excellence, and driving innovation. Among the various leadership style, caring leadership characterized by empathy, support, and a focus on the well-being of faculty, staff, and students, has been shown to contribute to a more positive academic culture (Murphy & Louis, 1999). It is further elaborated by Singh et al. (2016) who argue that both empathy and mindfulness are critical for developing effective leaders capable of navigating complex interpersonal dynamic. Caring leadership is particularly crucial for higher education institutions aiming to foster a research culture, as it can create a supportive and motivating atmosphere that empowers individuals to engage in innovative, high-quality research. Despite the clear importance of a robust research culture, many higher education institutions, especially in Islamic higher education institutions in Indonesia face significant challenges in this area.

The research culture within Islamic higher education institutions remains considerably lacking, even though a well-established and high-quality research culture stands as a fundamental pillar and requirement for these institutions to achieve excellence and competitiveness. The deficiency in research

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orientation within Islamic higher education institutions (IHEIs) in Indonesia is evident from the significantly lower funding allocated to research compared to public universities (PUs). For instance, the research funding for a top IHEI in Malang, East Java, amounted to 5.4 million in 2021, 6.3 million in 2022, and 8.7 million in 2023. Similarly, the research funding provided by the leading IHEI in Bandung was 9.9 million in 2021, 12.2 million in 2022, and 10.3 million in 2023. In contrast, a well-regarded public university in Malang allocated research funding of 40 million in 2021 and 45 million in both 2022 and 2023. Likewise, a distinguished public university in Bandung allocated 57 million in 2021, 58 million in 2022, and 63 million in 2023 for research.

The underdeveloped research culture has led Islamic higher education institutions to lag and be less competitive than public universities in Indonesia and even globally.

Internationally, the issue of funding inequities in higher education also became problems that has significant implications for the cultivation of research culture. For example, in Korea, Hwang et al. (2024) claims that a positive research culture is considered the key to facilitating the utilization of research findings. In clinical nursing research, she found that nurses conducting research may find the utilization of findings challenging due to the lack of a positive research culture. Furthermore, in Georgia, the structure of funding systems often prioritizes institutional performance metrics that emphasize student enrollment over research quality and innovation. This trend is particularly evident in Georgia's higher education funding policy, which has been criticized for incentivizing quantity over quality in research outputstaba (Tabatadze, 2023). Similarly, in Kazakhstan, Jongbloed and Lepori (2015) note that while some higher education institutions receive substantial funding, others face significant resource scarcity, which can lead to disparities in research capabilities and outputs. All in all, addressing research funding inequities is crucial for fostering strong research culture in higher education.

In Indonesia, the disparities in research funding and development can be linked to the broader differences between Islamic Higher Educations (IHE) and General Higher Education (GHE) institutions in Indonesia. IHEs fall under the supervision of Ministry of Religious Affairs which include colleges for Islamic studies, institutes for Islamic studies (IAINs) and state Islamic universities(UINs) (Latief, 2022). They integrate Islamic teachings with academic programs in science, technology, and other fields (Juhaidi, 2024). They have long strived to foster academic excellence while promoting moral and ethical values in education. On the other hand, GHE institutions, regulated by the Ministry of Education, Culture, Research and Technology are generally more focused on secular disciplines and often have betterestablished research infrastructures. These institutions benefit from greater access to research funding, enabling them to produce higher-quality academic outputs and compete more effectively on the global stage. As a result, despite their unique approach in combining religious education with modern academic fields, IHEIs face challenges in strengthening their research culture.

IHEIs research fundings or grants is supported by several progams such as *Litapdimas* (Research, Scientific Publications, and Community Service) program managed by the Indonesian Ministry of Religious Affairs to support and enhance research, publications, and community service within Islamic higher education institutions. The program facilitates grants for academic research, supported by a user-friendly digital platform that streamlines research management, a feature widely appreciated by recipients despite some areas for improvement (Syani et al., 2020). This program has the potential to significantly boost research productivity and academic excellence across UINs, contributing to their mission of fostering innovation and development. However, there are gaps of research fundings and development compared to GHE institutions which receive greater support from the Ministry of Education, Culture, Research, and Technology.

However, while many Islamic higher education institutions face challenges in cultivating a robust research culture, some have already possess a strong and superior research culture, enabling them to compete with other academic institutions. This is evidenced by the abundance of international scholarly publications, a growing number of research proposals, increased research support, enhanced spirit of academic collaboration, a plethora of activities rooted in academic values, and the flourishing of academic creativity within these institutions. Thus, the excellence of an Islamic higher education institution can be gauged through the development of its research culture.

A robust research culture is a primary factor in achieving excellence for higher education institutions, aligning with indicators of excellence and world-class status (WCU) for universities. Outstanding

universities are internationally recognized for their research and teaching endeavors (Levin et al., 2020). state that the prerequisites for achieving excellence or WCU status include excellence in research (academic freedom and an atmosphere of intellectual excitement, self-governance, adequate facilities and funding, diversity), internationalization involving students, scholars, and faculty from abroad (democratic leadership), a talented undergraduate body (utilization of ICT, efficient management, library resources), quality of teaching (connection with societal and community needs), and intra-institutional collaboration. The attributes of a WCU include (1) world reputation, (2) research performance, (3) prominent graduates, and (4) international participation (Anwar, 2009).

Based on these descriptions, the role of a research-oriented culture fostered by higher education institutions significantly impacts their trajectory toward becoming world-class institutions (Causadias et al., 2023; Khoo, 2023; Olvido, 2021). Therefore, it can be asserted that a world-class university or an excellent higher education institution is one that generates globally impactful publications through high-quality research, thereby enhancing its competitiveness.

The excellence of a college does not come by itself, but there are efforts made by leaders. The college as the most complex social institution, both of its varied input and its process of transformation, will not be good by itself, but through the changes made by its leaders (Centeio et al., 2018; Hanson, 1985). Leaders are people who strive to drive, influence and make decisions so that the college can be superior and successful. Therefore, when connected with its function as an open social institution, colleges are required to always innovate, including in terms of research. A good research culture would be one of the indicators of a college's excellence. With good leadership in shaping a culture of research, then colleges will be able to live relatively longer (Frymier & Pi, 1984; Reeves, 2000). Henderson and Perry say that a good educational institution is the one capable of shaping an academic culture in its environment (Henderson & Perry, 1981; Woods et al., 2019).

There are several studies regarding the factors that contribute to the excellence of an Islamic higher education institution, including the continuous and rapid development of infrastructure (Dani, 2021; Rizal, 2021; Suhardi, 2023). Additionally, Islamic higher education institutions often benefit from the unique integration of knowledge, technology, and religion (Qoumas, 2022; Siagian, 2023). Furthermore, some studies have examined on the factor of excellence competing through the developed environment. Likewise, there is research that leads to the conclusion that the advantage of competing a college can be obtained through advantage of cost, differentiation and focus.

Another related research on caring leadership highlights how a nurturing, empathetic leadership style can significantly benefit teachers and students in educational settings (Murphy & Louis, 1999). In addtion, other leadership research, transformational leadership suggests a positive impact on Islamic educational institutions, as it aligns with the Islamic principles of guidance and moral integrity (Jasni et al., 2024; Syamsuddin & Maunah, 2020). These studies emphasize the importance of not only focus on achieving institutional goals but also prioritizing the ethical development of their followers, thereby enhancing the overall educational environment. In addition, Yusof et al. (2020) states that leaders are encouraged to leverage knowledge as a strategic asset, ensuring that both spiritual and intellectual growth are prioritized. However, despite the considerable focus on infrastructure, leadership, and institutional culture, little research has specifically addressed caring leadership as the leading factor in fostering of a robust research culture thus driving the excellence of Islamic higher education institutions. Caring leadership can address the emotional and motivational challenges that often hinder research productivity, such as burnout, isolation, and a lack of support. By prioritizing the well-being of faculty and students, these leadership approach can foster an environment that encourages collaboration, intellectual risk taking, and a deeper commitment to academic excellence of IHEIs.

This study addresses the gaps in previous literature by thoroughly examining the process of cultivating a research culture through the methodological aspects implemented by the leaders of Islamic higher education institutions. Based on the findings of previous literature reviews, variations exist in the studies concerning the formation of a research culture. Hence, this research poses three questions: (1) what are the forms of enhancing research enthusiasm and performance? (2) what are the manifestations of caring leadership behaviors that support a research culture? and (3) what are the implications of the growing research climate for enhancing reputation and the quality of higher education? Accordingly, this study aims to uncover novel insights into the process of forming a research culture through leadership models.

This research is based on an argument that the formation of a research culture centers around actors and roles, historical context, and the methodology of knowledge, thereby rendering the understanding of higher education institutions more subjective. Consequently, this research endeavours to present something new about the process of cultivating a research culture, placing greater emphasis on the strategic aspects and methodologies of its establishment carried out by leaders. The process of forming a research culture within higher education institutions can effectively drive the attainment of excellence and international stature. As a result, the management of higher education institutions can be carried out in a more effective and efficient manner, as it is not limited to narrow perspectives and is not solely reliant on individual aspects, roles, and historical context. This study offers practical recommendations for IHEIs to develop a strong research culture through caring leadership that can enhance their global competitiveness and academic output, positioning them as leaders in both academic and Islamic educational field.

Literature review

Caring leadership

Leadership has various styles and approaches with its unique characteristics and implications for organizational dynamics. Leadership attitudes that prioritize empathy, support, and the well-being of faculty, staff, and students exemplify the model of caring leadership within an academic environment (Harmon et al., 2018; Tran et al., 2020). Empathy in leadership involves understanding and sharing the feelings of others, which is essential for building trust and rapport within teamshend (Hendriks et al., 2020). Research by Liyanage (2020) emphasizes empathy and moral integrity, has been shown to positively influence employee well-being by fostering an environment where individuals feel valued and understood. Furthermore, studies have highlighted supports from leaders are associated with improved employee well-being and reduced stress levels (Chingara, 2022; Kelloway et al., 2013). Finally, leaders who prioritize the well-being of their team members not only foster a healthier workplace but also enhance overall organizational performance (Hendriks et al., 2020). Fostering such an attitude requires the development of a supportive and welcoming culture that encourages individual growth, academic achievement, and public satisfaction among academics (O'Farrell, 2019; Ragaisis, 2018). Student-centered leadership places a premium on students' needs and interests. This leadership model embraces opendoor policies and promotes transparent communication to foster trust and collaboration (Kesler, 2020; Leithwood, 2021). Through caring leadership, every individual works to cultivate a friendly atmosphere where everyone is valued, respected, and understood (Singh, 2019). According to Louis et al. (2016), assesrts that caring leadership cultivates its ethic using the elements of attentiveness as understanding grounded in empathy, motivational displacement as prioritizing others' needs, situationality as adaptive and responsive to variable and particular conditions, mutuality as the assumption of flexible roles and cooperative responsibility, and authenticity as opennes, transparency and meaningfull attention.

This leadership model offers opportunities for skill development and acknowledges and nurtures unique qualities and talents (Coelho et al., 2021; Su et al., 2022). Furthermore, maintaining a healthy work–life balance is a crucial aspect of caring leadership within the academic realm. Approaches such as aiding in workload management, promoting self-reflection, and stress management can also be implemented (Lim, 2019; Turner & Margaret, 2016). Involving not only staff and faculty in decision-making processes but also students and even parents or guardians is essential. This is necessary to gain diverse perspectives, solicit feedback from stakeholders, and encourage shared accountability and ownership within the academic community (Hairon & Goh, 2015; Mitchell, 2017; Wang, 2018). Apart from that, caring leadership can help grow a research culture in higher education, because caring leadership has been proven to be able to increase flexibility in learning performance (Ryu et al., 2022).

In comparison, other leadership approach, spiritual leadership integrates a broader ethical and value-based framework into the leadership process. It emphasizes the importance of creating a vision that resonates with the intrinsic motivations of followers, fostering a sense of calling and purpose (Purnami & Senen, 2021). Spiritual leadership is characterized by its focus on ethical values, altruistic love, and a

commitment to the well-being of both individuals and the organization as a whole (Hidayah & Sutopo, 2017). This model not only seeks to motivate employees through a shared vision but also aims to cultivate a spiritual climate that nurtures personal growth and organizational harmony (Wang et al., 2018). While caring leadership is primarily concerned with the emotional support and well-being of team members, spiritual leadership extends this concern to encompass a deeper ethical and spiritual dimension.

Hence, in this study we present the conceptual framework of our study, which highlights the interconnected dimensions of caring leadership in education (Figure 1).

This framework positions caring leadership at its core, emphasizing empathy and support within academic environments, and connects it with four key components including Leadership Traits, Supportive Environment, Student-Centric Focus, and Research Improvement. This framework illustrates how caring leadership serves as a central approach to fostering trust, collaboration, and holistic growth in educational settings.

Research culture

Culture encompasses the habits, ways, or patterns of behavior in an individual's life that are influenced by the environment (Azima et al., 2021). Research culture, on the other hand, is an investment containing evidence to be observed, consisting of outcomes that are observable and measurable in terms of performance and products (Olvido, 2021). Research culture constitutes a set of values, beliefs, and behaviors related to research within an organization (Beverly, 2021; Macleod, 2022; McCann & Schneiderman, 2019). Research culture is referred to as an environmental factor that can influence research productivity in higher education (Adefuye et al., 2021). It creates an environment that facilitates organizational development to support the growth of new knowledge and provides opportunities for researchers to unfold their studies (Frakking et al., 2021). Therefore, research culture is a habit, manner,

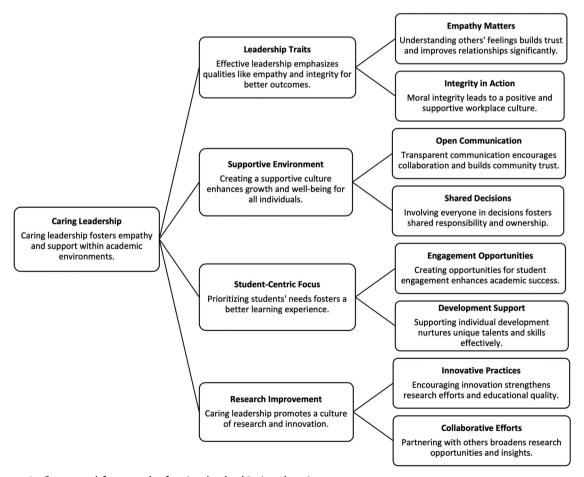


Figure 1. Conceptual framework of caring leadership in education.

or behavior shaped by organizational values and beliefs that can impact individual productivity in conducting research activities.

Currently, research culture in higher education is experiencing rapid development (Altaf, 2019). Research culture has also been identified as a top priority across various disciplines (Kovoor et al., 2023) and has even become an obligation for academics in higher education (Nugroho, 2022). The demand to foster a research culture among academics aims to enhance a productive (Mellor, 2021) and quality-driven credibility revolution (Darwis, 2017). Furthermore, the formation of a research culture and the creation of articles or scholarly works serve as benchmarks for the success of an institution (Musa & Hardianto, 2020; Octavianingrum, 2022). Moreover, developing a research culture can aid academics or educators in actively seeking solutions related to teaching and learning issues (Sapitri, 2022). Consequently, a well-developed research culture can enhance the credibility and quality of academics, enabling them to proactively address educational challenges.

Higher education is an educational institution that conducts teaching and learning activities at a level higher than secondary school (Chinta et al., 2016; Mohamed Hashim et al., 2022; Tight, 2020). Higher education encompasses broader institutions such as universities, which have their own learning arrangements, degree-granting capabilities, and excellence in research (Sintayehu, 2018). The main purpose of higher education is not only to provide teaching and learning activities but also to contribute to preparing learners to become beneficial members of society (Chinta et al., 2016). The two dimensions of contribution consist of axiological and praxiological aspects. The first, axiological dimension pertains to the objects of higher education: what higher education does, what is in the centre of its activities. This includes three key elements: knowledge/skills (basic and applied knowledge, generic and particular skills), norms and values (social, cultural, professional, civic) and social value (social statuses). The second, praxeological dimension pertains to the internal dynamics of higher education: what higher education does in relation to the object, the processes, practices, activities (Smolentseva, 2023). Furthermore, higher education institutions also contribute to the implementation of sustainable development, particularly by facilitating the dissemination of sustainability principles (Zaleniene & Pereira, 2021). Knowledge, vision, mission, and strengths in driving change are reflected in the sustainability values applied by higher education institutions (Ramísio et al., 2019). The realization of sustainable and effective higher education has implications for competencies, careers, and even the well-being and economy of learners at individual, institutional, and national levels (Schneider & Preckel, 2017).

Higher education is categorized into two forms of institutions: firstly, based on the education system and academic disciplines such as universities, colleges, institutes, academies, and polytechnics. Secondly, based on their management systems, they are categorized as Public Higher Education Institutions (PTN), Private Higher Education Institutions (PTS), and State-Owned Higher Education Institutions (PTK) (Arifin, 2017; Handayani, 2015; Ulum & Novianty, 2012). All types of higher education institutions require effective educational management and administration systems (Muktiyanto et al., 2020; Wibowo, 2019). The goals, programs, strategies, targets, methods, and forms of educational realization are contained within their management and administration systems (Pochtovyuk, 2015). Additionally, each educational institution has leaders who are responsible for overseeing and controlling the continuity of educational processes and activities (Thwaite, 2022). Leaders in higher education institutions also need to evaluate their leadership and find the most suitable and effective approaches to advance the institutions they lead (Black, 2015). Thus, the role of leaders and the chosen leadership style greatly determine the success of a higher education institution (Arokiasamy & Tat, 2020; Nugroho et al., 2021; Strielkowski et al., 2020).

Previous studies

While there is a growing body of research on leadership styles and their impact on organizational outcomes, there remains a notable gap in understanding how caring leadership specifically influences research culture within academic institutions. For example, Downe et al. (2016) emphasize the importance of leadership in fostering ethical conduct within public organizations, suggesting that leaders play a crucial role in establishing an ethical culture through their actions and decisions. However, their study primarily focuses on ethical leadership without delving into the specific attributes of caring leadership and its potential to enhance research culture. This indicates a need for further exploration into how caring leadership can create an environment conducive to research and innovation. Meanwhile, Rasool and

Dilshad (2023) seek the importance of institutional support and collaboration in shaping research culture which identify factors such as transparency, reward systems, and national policies as critical elements influencing research culture at universities. While these factors are undoubtedly important, they do not fully account for the interpersonal dynamics that caring leadership can foster, which may enhance collaboration and motivation among researchers. Furthermore, the previous studies tends to emphasize quantitative approaches, which may overlook the qualitative aspects of leadership that are crucial for understanding its impact on research culture. By addressing these shortcomings, this study shared insight on how caring leadership can foster an environment that not only supports but actively enhances research culture within academic institutions.

Method

Research design

In this research, the required data consists of information about the strategies for forming a research culture. This study also uncovers data about the efficient factors contributing to the formation of a research culture within the site under investigation. Therefore, to obtain such data and given that the focus of this research pertains to "the process of an event," a qualitative approach is adopted (Denzim & Lincoln, 1994). This study particularly used qualitative descriptive approach as it able to capture the participants' experiences and perspectives (Doyle et al., 2020), which is crucial in understanding the dynamics of caring leadership within research environments. Moreover, the data needed for this research is of a holistic nature (comprehensive and inseparable). This is because it encompasses the entirety of socially interacting situations synergistically. As a result, to elucidate the research focus, in-depth and naturalistic observations are required (Egon & Guba, 1985).

Research participants

In this study, all participants are considered to have directly experienced or are experiencing the phenomenon being studied. They were chosen through criterion-based sampling (Merriem, 1998) in line with the research criteria. In this case, the selected participants were chosen based on their direct involvement in or influence over the research culture at State Islamic University in Bandung such as the Rector, Vice Rector for Academic Affairs, the heads of various units and the deans of various faculties. The selection process ensured that they were not only knowledgeable about the subject but also actively engaged in the policies, programs, or practices related to the research culture. This approach ensures that the data collected is from individuals who are well-informed and knowledgeable about the caring leadership and its role in cultivating a research culture. The rationale behind the selection of these particular informants lies in their specialized knowledge and positions within the university. According to Lincoln and Guba, the first informants selected should possess specialized and informative knowledge directly related to the situation that is the locus and focus of the study, in addition to holding a special status (Egon & Guba, 1985). For example, Mahmud (Rector of State Islamic University in Bandung) was chosen as the first informant due to their pivotal role in shaping the overall process of forming the research culture at the university (Table 1).

Table 1. Research participants.

No	Name	Position
1	MHMD	Rector
2	RA	Vice Rector for Academic Affairs
3	MQ	Head of the research and community service institute
4	DM	Head of research center
5	AH	Dean of Education Faculty
6	DJ	Vice Dean of Academic Faculty
7	WD	Dean of Ushuluddin
8	OT	Head of Library
9	BSR	Head of Writing Class
10	AF	Chairman of the Journal House/Writing Centre

Prior to the research, participants were provided with complete information about the study's purpose, process, risks, benefits, and their rights and were requested to provide written informed consent. This study adhered to ethical research principles and was approved by the university.

Data collection

In collecting data, the researcher employed three techniques: in-depth interviews, participant observation, and document analysis. During the interviews, the researcher recorded the outcomes using two methods. Firstly, the researcher took notes of all interview outcomes as the interview process unfolded. Secondly, the researcher recorded the interview content (using a mobile phone) to enhance the accuracy of the interview results. After completing the interviews, the researcher transcribed them based on the written and recorded interview outcomes and confirmed them with the interviewees (member check). The second approach involved observation. Observation aimed to gather data about the actions of university leaders, LP2M leaders, faculties, and study programs (cultural behavior), as well as the creations and materials used (cultural artifacts) by the informants (Spradley, 1980) in forming research quality at the studied university (Spradley, 1980). The third approach was document analysis. This method was used to strengthen and supplement evidence from interviews and observations (Yin, 1994). The documents analyzed included profiles of outstanding universities, research activity documents, research programs, faculty research data documents, website information, research collaboration documents, administrative documents, and others.

Data analysis

In the data analysis phase, a transcription procedure was conducted, where the data collected from interviews were transcribed into Indonesian. It was intended that transcription be carried out after each interview concluded (Bryman & Burgess, 1999). Next was the process of coding and categorization. After reading or sorting, the recorded data within the transcription, field observation notes, and documents were assigned categorical codes to develop descriptions and broader themes (Herawan, 2016). These categories are derived from the themes that emerge during the coding process, referred to as inductive codes by Miles and Huberman. However, as a general coding guideline, primary categories are initially created based on certain propositions (conceptual framework), known as a priori codes by Miles and Huberman (Herawan, 2016). These primary categories encompass elements relevant to the research focus. Subsequently, the data is presented and concluded by drawing conclusions.

To ensure the validity and dependability of the data in this study on caring leadership in cultivating research culture in Islamic higher education, several strategies were used. First, research issues are generated from and grounded in evolving theories about organizational culture, research culture, and culture-forming strategies (Mason, 2002). Second, triangulation was applied by involving various sources and methods/techniques checking data from interviews, field notes, and documents to confirm consistency across different sources. Member checking was used by sharing transcribed interviews and the researchers's interpretations with participants for feedback, ensuring their views about caring leadership in their institutions were accurately captured. Finally, data saturation was monitored to ensure that no new information was emerging, confirming that the data collected was complete. These strategies helped ensure the study's findings were credible and dependable. The data analysis process, adapted from (Juhaidi et al., 2024) can be seen in Figure 2.

Results

Cultural management research on research sites is realized through methods that consider the policies set by the Rector, the continuously growing and evolving infrastructure, and an academic atmosphere that supports research culture. The Rector's policy at UIN Bandung regarding research and academic publication emphasizes learning-based research and research themes aligned with the expertise of the faculty members. The academic atmosphere is reflected in the number of funded proposals, faculty involvement, increasing number of proposals, growing research funding allocation, and the quantity of

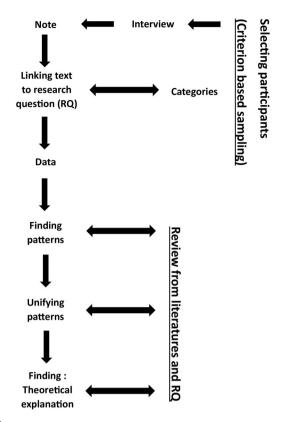


Figure 2. Procedure of research.

Table 2. Number of research proposals over the years at UIN Bandung.

No	Year	Number of proposals	Number accepted	Description
1	2017	217	142	
2	2018	261	232	
3	2019	271	191	
4	2020	279	0	No proposals accepted due to rescheduling to 2021
5	2021	154	263	
6	2022	347	256	

Table 3. Increase in funded research projects and faculty involvement at UIN Bandung.

No	Year	Number of research	Number of engaged faculty	Description
1	2017	142	395	_
2	2018	232	395	
3	2019	191	323	
4	2020	0	0	Refocusing Covid-19
5	2021	263	491	
6	2022	267	499	

citations which continue to rise. Establishing institutional infrastructure to support the growth of a writing-friendly environment includes setting up writing classes, a journal house, the "Writing Center" of Sentra Publikasi Indonesia, and a Center for Research and Academic Publication.

Enhancing enthusiasm and research achievements at higher education institutions

Increasing number of research proposals (LPPM)

Research proposals, serving as blueprints for research implementation, contribute to measuring the integration of research culture. A higher number of written and submitted proposals indicates a thriving academic atmosphere. Data reveal that the number of proposals submitted by faculty members increases year by year, as illustrated in Table 2:



Number of funded research (BOPTN/independent) and faculty involvement

In direct proportion to the number of proposals, the quantity of funded research projects on campus has also increased annually. Consequently, the count of faculty involvements has also risen year by year. This trend is evident in Table 3:

Number of downloaded articles each year

The strong research culture within Islamic Higher Education is also evidenced by the increasing number of articles downloaded by faculty members every year. The latest data indicate that in the year 2022, the number of articles downloaded by UIN Bandung faculty members totaled 23,010 articles. This figure has seen an increase compared to previous years illustrated in Table 4.

Amount of allocated funds for research

The amount of funds provided by the Islamic Higher Education for research and scholarly publication activities has been increasing from year to year. This upward trend reflects an improving research culture over the years. Although, in 2020, the Islamic Higher Education did not allocate funds due to budget reallocation amidst the Covid-19 pandemic, the subsequent years saw a sharp increase in research and scholarly publication funding compared to the previous years (Table 5).

From the above data, it can be concluded that the management of the research culture carried out by the Islamic Higher Education research institution (PTI) is commendable. This is evidenced by the increasing indicators of research and scholarly publications, including the number of proposals, funded research projects, allocated funds, and the growing number of articles downloaded by faculty members and the academic community of UIN Bandung. The increasing enthusiasm for research among faculty members and the academic community is driven by the growing research culture, scientific thinking, and behavior based on objectivity, which are also improving.

Caring leadership practices in supporting research

The rector tirelessly strives to meet research needs, encourages faculty members to participate in research and scholarly publication training. Furthermore, the rector safeguards the growth of the research culture by formulating research-related policies, both in the realm of learning and beyond. Additionally, the rector establishes and shapes the infrastructure for research and scholarly publication, thereby accelerating the growth and development of the research culture.

Encouraging research and scholarly publication training (building a conducive research culture)

The university leadership consistently organizes research and scholarly publication training activities, both for their own faculty and in collaboration with other institutions. These training sessions involve

Table 4. Number of downloaded articles by faculty members at UIN Bandung.

No	Year	Number of Article	Description
1	2017	115	_
2	2018	851	-
3	2019	10294	_
4	2020	12592	_
5	2021	21029	_
6	2022	23010	-

Table 5. Amount of allocated funds for research at UIN Bandung.

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No	Year	Amount of funds	Funding source
1	2017	7,942,834,000	Pure Indonesian Rupiah
2	2018	11,021,000,000	Pure Indonesian Rupiah
3	2019	7,815,061,000	Pure Indonesian Rupiah
4	2020	2,125,000,000	BLU
5	2021	9,901,571,000	Pure Indonesian Rupiah
6	2022	12,285,072,000	Pure Indonesian Rupiah
7	2023	10,346,898,000	Pure Indonesian Rupiah



speakers from within the campus as well as external experts. The research and publication training, including the development of research-based teaching materials, are ways to integrate research into the flagship and competitive programs of the Islamic higher education institution. This is echoed by OT as follows:

Every semester, we encourage our faculty to write research-based teaching materials. I believe this continues previous programs where faculty members must base their research on their expertise... and to ensure that the research results have an impact on teaching, we often conduct training on writing research-based teaching materials for reference needs." (Interview; 2022)

In the UIN Bandung website document with the link https://uinsgd.ac.id was found that the efforts to create a high-quality atmosphere for research and scholarly publication are illustrated through collaborations such as the Writing Class in partnership with the Journal House and the "Writing Center" of the Indonesian Publication Center, which conducted an Academic Writing Class in a hybrid format (online and offline) from May 10 to June 18, 2022. Furthermore, faculty members often engage in advanced research, whether independently or in cooperation with other universities, such as ITB and UPI. This was conveyed by DM in an interview as follows:

Actually, what makes us excel is the collaboration, both in research and international conferences, and even collaborative article writing with UPI, which is quite frequent, as well as with ITB. Faculty members also develop advanced research on research-based learning resource development funded by BOPTN. The support from the rector, by encouraging the academic community to participate in research and scholarly publication training, whether organized by the institution itself or in collaboration with others, greatly benefits the cultivation of a research culture at PTI (Interview; 2022).

Regulations as the legal foundation for the growth of the research domain

The establishment of a research culture is also fostered through a conducive academic atmosphere within the university, facilitated by leadership policies. These policies naturally influence the mindset and behavior patterns of campus members, orienting them toward research and scientific thinking.

- (1) Regulations that govern research development. The leadership practices of the rector in nurturing the research culture can be observed in the Rector's Decree on Guidelines for Research and Scholarly Publication, as documented in Decree Number:/Un.05/V.2/Kp.02.3/04/2016. Furthermore, to enhance research governance and quality, the Research and Development Center (Puslit LP2M) issued guidelines and policies governing research and scholarly publication at UIN SGD Bandung, including a) Research Guidelines for Faculty Members, b) Research Quality Assurance Guidelines, c) General Book Guidelines; d) Research Financial Guidelines; e) Research Standard Operating Procedures (SOP); and f) Research Work Instruction Manual.
- (2) Regulations for research-oriented learning. In addition, Islamic higher education institutions also promote, through their policies, that every teaching conducted by faculty members should be researchbased. Research-based teaching is expected to foster the growth of scientific thinking and behavior. Research-based teaching can take the form of various instructional models, such as problem-based learning (PBL), case studies, discovery inquiry learning, and others. Research-based teaching is also facilitated by using learning materials derived from research, either from the facilitating faculty members or other sources. This sentiment is conveyed by MHMD and endorsed by AH and DJ as follows:

As the Rector, I always encourage faculty members to engage in research-based teaching, whetherthrough instructional approaches grounded in research or referencing research-based sources. This way, a researchoriented mindset and actions are ingrained (Interview; 2022).

AH further emphasizes this idea:

In teaching, faculty members must design their curriculum in the course syllabus, illustrating the methods used, thereby infusing the culture of research through the development of teaching methods. (PBL, Case study, PjBI, Discovery Inquiry) (Interview; 2022).

DJ highlights that:

The research culture is also fostered by the incorporation of research-based teaching references in the course syllabus, encouraging students to utilize research as reading materials (Interview; 2022).

Another strategy employed is making faculty research outcomes obligatory references that students must read. This perspective is echoed in the interview with DM:

Yes, the results of such research will be used as references in the courses, hence the faculty research should align with their expertise, the courses they teach, or the content they deliver (Interview; 2022).

(3) Regulation on the alignment of proposed research with the expertise area. In research programs, whether conducted through the Ministry of Religious Affairs' BOPTN program or individual research initiatives, the leadership establishes policies where research topics eligible for funding should align with the faculty members' expertise in their respective fields. This is done to ensure that research outcomes can be utilized as learning references. DM expressed this perspective:

We also encourage faculty research to be directed toward areas of expertise that align with the courses they teach. For example... in the BOPTN research program, one of the evaluation criteria for acceptance is whether the proposed research topic corresponds to the field or course being taught, as this will have an impact on the teaching process as well... the same goes for individual research (Interview; 2022).

(4) Regulation on learning outputs in the form of journal articles. In addition to the aforementioned approaches, to further stimulate the growth of the research culture, the outcome of learning, particularly in postgraduate programs, is primarily in the form of articles. DJ conveyed this idea:

Some faculty members do establish a policy that requires students, especially in postgraduate programs, to produce articles. Therefore, the outcome of the learning process is an academic article (Interview; 2022).

The regulations established by the Rector regarding research, whether related to instructional matters, non-instructional aspects, funding, and others. These research regulations enforce active involvement from the campus community in building a strong research culture.

Establishing institutional infrastructure to support the growth of writing climate

Another policy forming the academic atmosphere is the establishment of journal houses, writing classes, the "Writing Center" of the Indonesian Publication Center, and the Research and Scholarly Publication Center. Additionally, a significant building erected to serve as the epicenter of research activities is the Research Center building. The university's policy of building research infrastructure greatly contributes to its excellence. This sentiment was conveyed by the Rector as follows:

The writing class activity can invigorate our knowledge, as the source of civilization is research. At the university level, we have instituted the Journal House program. One of its policies is the writing class. This is closely aligned with the initiatives of the Dean of the Faculty of Ushuluddin, and it has significantly contributed to elevating UIN Bandung's achievements on both national and global scales (Interview; 2022).

We are very fortunate with the academic creativity in Ushuluddin, such as ... the writing class, the journal house, and the policy of requiring articles as outcomes of teaching. These are what I consider the academic atmosphere (Interview; 2022).

What's highly visible in the academic creativity in Ushuluddin is the writing class... it's like a community of individuals who want to improve their writing skills... there are faculty members and students involved... they collaborate to learn about article writing techniques, including basic methods of citation using tools like Mendeley, Zotero, APA, and more (Interview; 2022).

AF, responsible for these activities, added that the writing class has significantly contributed to the establishment of a research culture, as stated:

The journal article writing class has produced nearly 600 articles for Scopus and international conferences, with the majority being for conferences ... conferences at UIN itself and other venues (Interview; 2022).

AF further elaborated:

The writing class is like a community... it's not compulsory, but they are always enthusiastic about producing scholarly works. The class is for both faculty members and students. The results of their work are compiled in a dedicated journal summarized in the Gunung Djati Conference (SGC) (Interview; 2022).



In the documents obtained by the researchers, there is one grand building that serves as the Research and Publishing Center (in addition to the LP2M office). This center is a subset of LP2M dedicated specifically to research and publication. Rarely do Islamic universities have a separate building for research and academic publication. This highlights how research has become the root and heart of the Islamic university.

Implications of the growing research climate for enhancing reputation and higher education quality

With the growth of a research-oriented climate and culture, there are notably positive implications for enhancing the quality of higher education. PTI has gained recognition in global rankings, such as Webometrics and Qrank. Similarly, at the national level, PTI consistently dominates by achieving excellence and recognition in research, both on an individual and institutional level. Another implication is that learning is indirectly driven toward research-based foundations.

Transitioning to research-based learning

The cultivated research culture implies that academic programs urge instructors to integrate research findings into every teaching session, as revealed by the following interview quote with AH:

This culture of embedding is also practiced by each instructor through curricular enhancements by integrating research findings into the classroom. This, undoubtedly, will contribute to cultivating a scientific perspective and mindset among students (Interview; 2022).

AH adds that to materialize a research culture, students cannot be left merely as subjects but must be active participants in the learning process. This signifies that the establishment of a research culture not only involves faculty members and university leadership but also requires active student involvement, as explained in the following interview:

As a follow-up to the Rector's program, the Faculty of Education encourages active student participation in research implementation. Instructors collaborate with students for joint research, both as research members and technical team members, through a tiered program (Interview; 2022).

WD adds that one of the implications of the growing research culture is using research instruments in teaching (Scientific learning). This is evident from the following interview excerpt:

The Rector consistently encourages instructors to employ research instruments in teaching, such as implementing scientific learning processes in the classroom. Instructors begin by having students observe the material to be taught, then seek theories for enrichment, and if necessary, perform laboratory experiments (Interview; 2022).

Learning is also directed toward instilling scientific values and skills. DM stated,

Every course is required to instill scientific attitudes and skills such as data collection, data analysis, and drawing conclusions ... this can start from how instructors design their teaching strategies in the classroom (Interview;

The research culture is also fostered by mandating each faculty member to implement research-based teaching processes for at least one course per instructor per semester... this is consistently driven by program leaders and faculties, greatly supporting the research culture at UIN (Interview; 2022).

Increased interest in university services

Overall, there is a high interest among the public to enroll in the Faculty of Islamic Studies. Among the five Faculties of Islamic Studies, the total number of applicants is 66,304 individuals (75.4%), while the General Faculty has a total of 21,619 applicants (24.6%), making a total of 87,923 prospective students. Overall, the ratio of applicants to available slots is 1:15, meaning oneseat is sought after by 15 applicants. In terms of the ratio of applicants to those who are accepted, it is 1:12. The number of foreign students registered at UIN Sunan Gunung Djati Bandung from 2015 to 2019 includes 65 individuals from Malaysia (55%), 53 individuals from Thailand (45%), and one individual from Somalia (1%). Most students come from West Java, accounting for 88.1%, followed by DKI (2.6%), Banten and Central Java (1.8%), with the rest being below 1%. The total number of undergraduate students until 2019 is 29,350.

Table 6. Number of won research competitions (Litapdimas).

No	Year	Number of researches	Number of participating faculty
1	2017	142	395
2	2018	232	395
3	2019	191	323
4	2020	0	0
5	2021	263	491
6	2022	256	462

Table 7. Number of published articles in scopus journals and proceedings.

		Scopus Procee	
Year	Number of article		
2017	52	32	20
2018	237	192	45
2019	319	262	57
2020	156	79	77
2021	211	148	63
2022	212	147	65

Table 8. Number of UIN Bandung citations.

No	Year	Number of citation	Description
1	2017	7282	_
2	2018	10228	_
3	2019	15808	_
4	2020	19642	_
5	2021	21582	_
6	2022	25781	-

Table 9. Number of student publications.

	<u> </u>		
No.	Status	Number	Description
1	2019	3	_
2	2020	227	_
3	2021	235	_
4	2022	249	_
5	2023	301	_
Total		1015	

Table 10. Number of professors at UIN Bandung.

No.	Year	Number	Description
1	Before 2021	20	_
2	2021	42	_
3	2022	54	_

Increasing involvement of faculty and students in national and international meetings (faculty and student achievements)

Since 2015–2022, students have actively participated in competitions at local, national, and international levels. The number of achievements at the local level was 260, at the national level 165, and at the international level 46. Many of these achievements were obtained from competitions or championships based on research and scholarly publications.

Furthermore, the number of research competitions won through litapdimas has also significantly increased. Similarly, the acquisition of research and scholarly publication achievements by faculty members, both through Scopus and proceedings, continues to rise. Tables 6–10 below illustrate this:

Meanwhile, in the context of academic publications by students, from 2020 until June 12, 2023, a total of 1015 student articles have been successfully published in scientific journals. These academic publications have been generated by students from all faculties at UIN Bandung. Academic publications by undergraduate students are still relatively uncommon in the country, as these students have not been widely directed toward mass academic publishing, except for achievements through collaboration with faculty members.

Research collaboration as a manifestation of auality recognition

As stated in the UIN Bandung Strategic Plan document 2020-2023, the number of collaborations carried out during the last 5 years (2019-2022) amounted to 225 domestically and 57 internationally. An average of 55 collaborations were conducted annually, spanning across central administration, faculties, departments/programs, as well as institutions. Most domestic collaborations were established with Islamic Higher Education Institutions (PTKI) at 42%, followed by other state universities (PTN and PTS) at 8%, governmental entities (central, regional, ministries, agencies) at 16%, State-Owned Enterprises (BUMN) and Regional-Owned Enterprises (BUMD) at 3%, social/dawah and cultural institutions at 15%, media and publishing at 8%, and secondary schools at 6%. Meanwhile, for international collaborations, partnerships with universities accounted for 65%, cultural institutions 5%, governmental entities 18%, and other institutions 12%.

As for UIN Sunan Gunung Djati Bandung's collaborations with foreign universities, they include: Indiana University of Pennsylvania, International Islamic University of Malaya, National University of Singapore, FUIW (Federation of the Universities of the Islamic World), ICESCO (Islamic World Educational, Scientific and Cultural Organization), INCIS Malaysia, Monash University, Murdoch University Australia, Libyan International University, ICAS University of London, Al-Azhar University Cairo, UBD Brunei Darussalam, Universitas Teknologi Mara, Sultan Samil Petra International Islamic College of Kota Bharu Malaysia, Senior Expert Service (Ses Bonn) Germany, UiTM Malaysia, and Moulay Ismail University Meknes Morocco. Additionally, UIN Sunan Gunung Djati has also collaborated with various companies, including banking institutions and other corporations such as Bank BRI, Bank BNI, Bank Syariah Mandiri, and PT. Garuda Air Line. Collaborations with various ministries, such as the Ministry of Environment (KLH), the Ministry of Development of Disadvantaged Regions (KPDT), and other governmental agencies have also been established. These collaborations predominantly focus on research and scholarly publication.

Enhancement of lecturer career progression

Based on data from the personnel department for the September 2020 period, UIN Bandung has 54 full professors. Out of this total, 53 are educators across eight faculties, and one holds the position of full professor employed as a lecturer (DPK).

Receiving awards as an achieving higher education institution

The establishment of a research culture also correlates with the achievements of the institution, both in terms of rankings and competitions. In webometrics, for instance, the institution consistently ranks at the forefront and manages to stay competitive alongside other institutions. Similarly, in competitions organized by the Ministry of Education, in the past three years, the institution has consistently achieved the best results (Table 11).

Furthermore, a total of 33.3% of study programs have obtained accreditation from BAN-PT with an Agrade (excellent) accreditation. On an institutional level, UIN Bandung has also received an A-grade (excellent) accreditation for Higher Education Accreditation (APT) (document's UIN Bandung https:// uinsgd.ac.id)

Table 11. Attained awards at UIN Bandung.

No.	Year	UIN Bandung's Achievement
1	2020	Best state Islamic higher education institution (ranked 1) according to Webometrics and UniRank Best SBSN (Islamic Economics and Finance) Managed State Islamic Higher Education Institution over the last 5 years
		Most Intellectual Property Rights (HaKI) owned by a state Islamic higher education institution
2	2021	Best state Islamic higher education institution (ranked 1) according to Webometrics and UniRank
		Best state Islamic higher education institution in terms of journals
		State Islamic higher education institution with the highest number of accredited journals
3	2022	State Islamic higher education institution with the most full professors
		Indonesian World Record Museum (MURI) recognition as the State Islamic Higher Education Institution producing the highest number of full professors in one period Informative Public Institution

The data shows that caring leadership helps build a strong research culture by creating an environment where faculty are motivated and supported in their research. The increase in research proposals, from 217 in 2017 to 347 in 2022, and funded projects, from 142 to 267, demonstrates the success of leadership in aligning research topics with faculty expertise, encouraging high-quality proposals. The growth in faculty participation, from 395 in 2017 to 499 in 2022, also reflects the leadership's efforts to foster collaboration through initiatives like partnerships with ITB and UPI. In addition, the Rector's establishment of a Writing Center and writing classes, along with increased access to research resources, is seen in the rise of article downloads from 115 in 2017 to 23,010 in 2022. Financial support has grown, with research funds increasing from IDR 7.94 billion to IDR 12.28 billion, even during the COVID-19 pandemic. Structural developments like the Research Center and journal houses, along with training on research and publication, also support a research-driven environment. By integrating research into teaching, requiring postgraduate students to produce publishable work, and promoting research-based materials, the leadership embeds research into academic practices. Overall, it shows that caring leadership, through its attention to faculty needs and its focus on collaboration and support, plays a key role in developing a thriving research culture.

In contrast, other IHEs in Indonesia, such as UIN Antasari Banjarmasin, UIN Samarinda, and IAIN Palangkaraya, have also implemented policies to improve the quality of research and scientific publications among their faculty members (Abidin et al., 2023). These policies include allocating 30% of BOPTN/ State University Operational Assistance funds for research and utilizing the LITAPDIMAS system to support research activities. While these efforts demonstrate a commitment to improving research output, the full benefits of these policies have not yet been realized. Budget absorption issues have hindered the development of a sustained research and publication culture at these institutions, limiting the impact of their policies.

Compared to these institutions, UIN Bandung stands out for its ability to translate caring leadership principles into tangible outcomes. The rector's approach of using caring leadership has effectively encouraged a research-oriented culture. Caring leadership focuses on emotional support, trust-building, and fostering an environment where faculty and students feel valued. Even though other IHEs may share similar policies regarding research support, the application of caring leadership has been more focused on creating a research-friendly environment. The rector's of UIN Bandung leadership has been evident in the prioritization of research-oriented policies, the development of research infrastructure, the allocation of increased funding for research, writing classes, a journal center, and the "Writing Center. These actions have contributed to a more supportive academic atmosphere, promoting engagement in research activities and academic publication. Furthermore, the increase in research proposals, funding allocations, and the quality of academic output reflect the positive impact of the rector's leadership in fostering a research-oriented culture.

Discussion

This study explores the role of caring leadership in fostering a supportive and productive research culture. Caring leadership has contributed to shaping a research culture within higher education institutions that is increasingly effective and efficient in enhancing research quality in the academic field. Hendriks et al. (2020) reveals that caring leadership emphasizes more on understanding and addressing the emotional and professional, thereby building trust and improving well-being. The study also draws on organizational support theory (Chingara, 2022; Kelloway et al., 2013) which reinforces the idea that supportive leadership reduces stress and enhances individual and institutional performance.

Additionally, Louis et al. (2016) frame caring leadership through elements such as attentiveness, motivational displacement, and authenticity, ensuring it remains adaptive, transparent, and relational. Using the previous theory mentioned, there are three significant findings in this study. Firstly, caring leadership has positively influenced the enthusiasm and research achievements within higher education institutions. This aligns with caring leadership theory stated by Hendriks et al. (2020), who emphasize how leaders' emotional attunement can foster trust and motivation, ultimately driving research engagement and productivity. The positive correlation between caring leadership and research achievements is further supported by the findings of Cheng et al. (2016) who emphasize that transformational leadership can significantly influence team climate and perceived quality of work, thereby enhancing overall

productivity in research. Secondly, the implementation of caring leadership practices has also led to the formulation of institutional visions and missions that are more research-oriented. It resonates with organizational support theory (Chingara, 2022; Kelloway et al., 2013), which underscores the role of leader support in shaping organizational goals and reducing stress among academics. By prioritizing the wellbeing of faculty and students, caring leaders have enabled institutions to align their missions with longterm research excellence. Thirdly, caring leadership has fostered a research climate that enhances the reputation and quality of higher education for both faculty and students. The nurturing environment created by caring leaders promotes collaboration and trust among faculty members, which is essential for high-quality research output. According to Steilen and Stone-Johnson (2023), caring leaders recognize the intrinsic interests of their community and strive to protect and support them, leading to increased engagement and a positive climate for research. As has been described in the result, UIN Sunan Gunung Diati Bandung has consistently demonstrated excellence in research and academic achievements. It has maintained its position as the top Islamic Higher Education Institution (PTKIN) in Indonesia, achieving the first rank among PTKIN according to Webometric rankings and securing the 36th position among all public universities in Indonesia (Dian et al., 2023; Dodo, 2022). Its strong research culture is reflected in its outstanding publication performance, particularly in 2021, when it recorded 43 journals indexed in SINTA, making it one of the PTKIN institutions with the highest number of accredited academic journals alongside UIN Makassar. This achievement highlights the institution's commitment to fostering a productive research environment. Furthermore, It has continuously received national recognition for its contributions to academic excellence. In 2020, the university received two prestigious awards in the Penganugerahan Apresiasi Pendidikan Tinggi Keagamaan Islam (Adiktis): (1) Best SBSN Governance for the Last Five Years, and (2) Highest Number of Intellectual Property Rights (HaKI) Ownership among PTKIN (Dodo, 2022). UIN Bandung which is being recognized as the PTKIN with the Most Accredited Journals, further solidifying its reputation for research performance.

Thus, it can be concluded that caring leadership has instilled a positive academic culture, making the management of higher education institutions more effective and efficient in improving research quality, scholarly publications, and community engagement at both local and national levels. This context underscores the crucial role of caring leadership in elevating research quality within higher education.

Furthermore, caring leadership aligns with leadership principles found in the Hadith, which emphasize empathy, fairness, and concern for others' well-being. In Islamic hadith, it is said, "The best of leaders are those who are kind and gentle with their followers," emphasizing kindness and attentiveness in leadership. Incorporating these principles into higher education leadership can create supportive environments, fostering research productivity while aligning with both academic and spiritual values. This approach not only improves academic outcomes but also ensures the well-being of faculty and students, guided by ethical and spiritual leadership.

Theoretical implications

This study reflects that caring leadership significantly impacts the quality of research in the academic realm. Leader attitudes based on empathy, support, and accommodating the well-being of faculty, staff, and students constitute a caring leadership model in enhancing research quality within higher education (Harmon et al., 2018; Tran et al., 2020). However, caring leadership is not always the preferred or even acknowledged model in the process of improving research quality solely driven by economic factors. Yet, the development process in academia should be centered around caring leadership that prioritizes the interests of faculty and students, aspects that have often been overlooked in the vision and mission of higher education institutions. Therefore, the realization of research quality in academia can influence the competency, output, and well-being of both faculty and students within higher education institutions (Schneider & Preckel, 2017), aspects that should not be underestimated.

Practical implications

Caring leadership in the process of enhancing the research quality of faculty and students in higher education institutions highlights the importance of a comprehensive understanding of leadership models to influence and achieve research excellence within these institutions. In alignment with this, Leithwood (2021) also states that if the caring leadership model can be applied by accommodating the needs and interests of faculty and students based on open policies, it can enhance the quality of academic education in the capacity-building sector. By utilizing this caring leadership model, as demonstrated by Chinta et al. (2016), the primary objectives of higher education can be realized, focusing not only on the process of teaching and learning activities but also on contributing to a culture for faculty and students as active and productive academics. This research culture can undoubtedly bring about credibility-changing outcomes for faculty and students in the future (Mellor, 2021).

The findings of this study differ from previous research. Studies that have discussed the development of capacity and quality improvement models for faculty and students in higher education have primarily focused on the conception of world-class universities within the context of economics and infrastructure to accelerate institutional progress (Causadias et al., 2023; Khoo, 2023; Olvido, 2021). However, the findings of this study show that the process of enhancing the capacity and quality of faculty and students towardthe world-class university program still emphasizes the object aspect, neglecting the importance of the subject. In line with this, Black (2015) also states that, apart from the role of leaders, the caring leadership model for improving the quality and capacity of a world-class university should emphasize an approach based on the subject's interests. This context renders caring leadership a highly crucial model in realizing a world-class university.

Caring leadership has shaped a research culture within higher education institutions to become more effective and efficient in enhancing research quality in the academic field. In line with this, Thwaite (2022) also asserts that higher education institutions can become more effective and efficient when leadership capacity can manage and control the vision and mission of the university based on the well-being of the subjects. This context can serve as a valuable lesson learned in supporting an institution that accommodates leadership values to increase productivity in academic domains. Therefore, to maximize and enhance capacity in higher education by formulating a relation-based leadership model, academic productivity can serve as the foundation for best practices in universities on the path toward becoming world-class institutions.

This study suggests that in strengthening research culture within educational institutions, legislators and educators can adopt caring leadership strategies. For instance, legislators can play a pivotal role by crafting a policy to provide more increased research funding and focused attention to higher education institutions, enabling academic leaders to foster a supportive environment for research. This can include establishing research grants for innovative and interdisciplinary projects or investing in state-of-the-art research facilities. Legislators can also introduce national recognition initiatives to celebrate institutions and leaders who excel in research development, alongside well-being programs that support the mental health and work-life balance of educators and researchers. Academic leaders in this case also educators can encourage teamwork through interdisciplinary research innovation and recognize achievements like publications and grants to motivate researchers. Then, implementing performance-based incentives for institutions that successfully build a thriving research culture can motivate leaders to prioritize care and collaboration. Additionally, by advocating for flexible work policies and organizing skill-building work-shops, academic leaders can create a nurturing environment that ensures personal and professional growth for researchers.

Study limitations and future research

Study limitation

This study, while significant, have some limitations to be considered. First, the study focused on only one institution, so the findings may not apply to all higher education institutions. However, similar outcomes could potentially also occur in other institutions with similar leadership practices or research culture. Second, the qualitative data of this study were taken from self-reported data from samples of leaders, faculty and students, which can be biased. People's personal experiences and opinions may not fully reflect the overall situation at the institution, and different perceptions could lead to varying conclusions. Additionally, the study focused only on caring leadership, and little comparing it to other leadership styles that might also influence research culture and academic performance. Other leadership



approach could produce different research result. Finally, this study did not explore the long-term impact of caring leadership on research culture.

Future research

This study focused on caring leadership within the context of fostering a research culture to enhance the quality and reputation of higher education. Further research is needed to explore additional factors that leaders, staff, and educators should possess to contribute to the formation of a robust research culture within higher education institutions. Additionally, this study is limited to only one of HEIs in Indonesia, and further studies should be conducted in similar institutions to provide more comprehensive insights on the topic. Additiobally, future studies conducted over a longer period would be necessary to explore the lasting effects of caring leadership on academic institutions.

Conclusion

This study concludes that caring leadership can contribute to nurturing a research culture within higher education institutions. In Islamic State University in Bandung, several aspects of caring leadership can be found such as leaders at UIN Bandung demonstrated emotional and professional support for faculty and students, creating an atmosphere of trust and collaboration that is essential for research success. Caring leadership is also reflected in the encouragement of research initiatives, where leaders actively support faculty and students to engage in research activities by providing training opportunities, resources, and incentives. Additionally, the leadership aligns the university's vision and mission with research-oriented goals, ensuring that policies and infrastructure are in place to support academic growth. Furthermore, caring leadership at UIN Bandung emphasizes building a collaborative research climate, promoting teamwork and partnerships, which are critical for the development of a thriving research environment. These aspects contribute to the institution's ability to cultivate a positive research climate, enhancing its reputation and the quality of academic output.

There are three main points in this study. First, caring leadership demonstrates an increase in research enthusiasm and achievements within higher education, Second, the application of caring leadership by research-supportive leaders includes initiatives such as encouraging educators to proactively engage in research training and scholarly publications, implementing research-related policies, and establishing infrastructure to support writing culture within higher education. Third, the growth of a research climate for enhancing the reputation and quality of higher education, encompassing research-based learning processes, an increased number of higher education applicants both nationally and internationally, enhanced achievements of faculty and students in research, the expansion of research collaborations, and increased career advancements for faculty members.

This research contributes to the field of higher education leadership, particularly in the context of caring leadership. The applied caring leadership by higher education leaders has shown positive impacts on the development and enhancement of research culture, benefiting both faculty and students. A thriving research culture can assist higher education institutions in elevating their quality, thus enabling them to compete at both national and international levels. To apply caring leadership in similar situations, it is important for leaders to prioritize the well-being of faculty and students by offering emotional and professional support. Leaders should establish good communication, provide regular opportunities for professional development and research funding, and align the institution's mission with a focus on academic excellence. Additionally, creating an environment that promotes collaboration and trust among faculty members, as well as between students and faculty, will help build a strong research community. Leaders should also be proactive in implementing policies and infrastructure that support research, such as developing research-centered networks and offering incentives for high-quality research outputs.

However, further research is still needed to explore other factors that leaders, staff, and educators need to possess that can also contribute to the formation of a research culture within higher education institutions. Additionally, this study is limited to several Islamic higher education institutions in Indonesia, warranting further research in other institutions to provide more insights on the same topic. It is also crucial to conduct longer-term studies to assess the impact of caring leadership in other higher



education institutions to explore how similar leadership approaches influence research culture across different settings. These investigations could provide valuable insights and broader applications of caring leadership principles within the context of higher education.

Disclosure statement

No potential conflict of interest was reported by the authors.

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