

Islamic moderation in education and the phenomenon of cyberterrorism: a systematic literature review

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ABSTRACT

This article presents a systematic literature review on Islamic moderation in education to prevent cyberterrorism in the latest literature. The method used is the systematic literature review and preferred reporting items for systematic reviews and meta-analyses protocol with the stages of identification, screening, eligibility, inclusion, abstraction, and data analysis assisted by PoP 7, VOSviewer, and NVIVO 12 plus. The search results in Scopus contained 1,252 articles, then filtered according to compatible themes into 54. The topic findings are the concept of Islamic moderation, Islamic moderation in preventing cyberterrorism in education, cyberterrorism, cyberterrorism phenomenon, terrorism, religious moderation, wasatiyyah, peaceful coexistence, and counter-terrorism. The findings of the results mention that Islamic moderation is a way of religion according to the principles of the Quran and Sunnah, namely ummah wasatan, which is applied to education. Cyberterrorism phenomenon occurs in various parts of the world, including in education, which is spread through cyberspace to intimidate, spread fear, and destroy the order of life in terrorist groups. Islamic moderation plays a role in preventing cyberterrorism in education through ideological approaches to radical organisations, accommodation of local culture, digital literacy, counter-narrative and deradicalisation, digital media mastery, digital media peaceful, and soft power deterrence. Future research needs to explore Islamic moderation according to the times.

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1. INTRODUCTION

Several studies have explored Islamic moderation and religious moderation in education, the phenomenon of cyberterrorism, digital terrorism, virtual jihadism, and cyber warfare [1]–[4]. However, research focusing on Islamic moderation in education to prevent cyberterrorism with a systematic literature review still needs to be done more [5], [6]. Islamic moderation in *pesantren* (boarding schools), schools, and madrasahs can prevent radicalism and terrorism from spreading to students. This is done through strengthening

of Quran values, local wisdom [7], and kiai exemplary [8], peace education, muslims and non-muslims tolerance which are sourced from the Quran [9], brotherhood, respect, care, respect for differences [10], Islamic moderation (fairness, balanced, tolerant, not extreme right, and left either), deradicalisation, strengthening islamic educational values, nationalism [11], *tawasuth* (moderate), *tasamuh* (tolerance), *tawazun* (balanced), *i'tidal* (fair), and *amar makruf nahi munkar* (inviting to do good and preventing disobedience) [12]. Strengthening islamic moderation is determined by the competence of teachers in teaching Islamic values in the middle with various innovations, media, and the utilisation of digital devices [13]. Weak implementation of Islamic moderation in education, low media literacy, and shallow understanding of the substance of Islam *rahmatallilalamin* make students vulnerable to be provoked by narratives of terrorism in digital media [14]. On the other hand, certain groups try to separate religion from the state, culture and society nationalism is prevalently increase [15], even though what they are debating is essentially final, because nationalism, culture, and state are the substance of Islam *rahmatallilalamin* which has been considered *bid'ah* (heresy) by radicals [16]. A study argues that internet addiction is the cause of people's exposure to cyberterrorism, hacktivism, and internet vandalism, including frightening propaganda to destroy the fabric of modern society [16]. In addition to internet advancement and technology democratisation, the causes of the emergence of cyberterrorism are [17], also due to low nationalism, Islamic moderation, the influx of radicalism, intolerance, interfaith sentiment, new crimes through the internet that are transnational, and the role of education that is not maximised in instilling strengthening religious education, peace and humanity [18]. The internet brings negative and positive impacts, such as cyberbullying, virtual violence, cyberterrorism, and cyberwarfare [19]. Terrorism negatively impacts ideology, urban-rural displacement, politics, society, culture, education, digital threats, and religious behaviours [20], [21]. Terrorism in cybermedia continues growing until now with various modes, strategies, propaganda and attacking students [22]. Digital terrorism targets the Middle East, North Africa, and Europe, with propaganda on the internet becoming a severe concern for governments worldwide [23]. The state has prevented cyberterrorism through education on digital security [24], and prevention through curriculum, learning, ideology, avoiding exclusionary nature [25].

Cyberterrorism is not just a crime in the form of attacks on machines, the internet, and digital systems, but rather a cybercrime that threatens national ideology, nationalism, individual human rights, the right to life, legal rights, and democracy [26]. Cyberterrorism aims to create fear, ideological violence, and public security threats that must be prevented and countered through digital literacy in education. Cyberterrorism is spread through texts, videos, blogs (websites), social media, and content that narrates hatred against non-muslims that invite them to carry out blind jihad [27], [28]. Cyberterrorism becomes difficult to contain because it is structured neatly through cyberspace, so preventive solutions are needed to strengthen nationalism, deradicalisation, religious moderation, and maintain spiritual and human values. Counterterrorism is a solution through the power of surveillance, human rights, digital literacy, and continuing education [29].

Islamic moderation refers to the concept of *wasatiyyah islam* (middle islam), in which the perpetrators are humans who carry out orders as *ummatan wasatan* (middle people) or moderates [30]. The values in moderate islam are the middle way, balanced, tolerant, upright, inviting good and preventing disobedience [31]. Islamic moderation comes from the Quran and as sunnah with the values of wisdom (*al-hikmah*), courage (*al-shajā'ah*), purity (*al-'iffah*), and justice (*al-'adl*), which underlie the struggle to find the middle way (moderation) in all matters [32]. Islamic moderation is the opposite of radical Islam, although, in essence, there is no extreme and liberal Islam because the teachings of Islam always invite peace, love, tolerance, and harmony [33]. Although Islam is a moderate religion, the reality is that there are jihadist (*salafi*) muslims who tend to be radical, moderate Islamist muslims, and conservative muslims who practice traditional religion [34].

Islamic moderation application in education to prevent terrorism refers to the struggle, peaceful, non-violent efforts to realise the welfare, progress, and peace of humanity sourced from the Quran [35], character education, Islamic religious education, adaptation to technology, democracy, human rights, and digital contextual learning [36]. The cultivation of Islamic moderation is determined by educational institutions, mass media, teachers, and moderate Islamic organisations [37]. Islamic moderation is carried out in education by including it in the curriculum, affirming the definition of moderate Islam (the middle way), media literacy, providing appropriate reading materials, and not being easily fooled by strangers in digital media [38]. In Saudi Arabia, Islamic moderation has become a comprehensive strategy to solve the kingdom's domestic problems through religious and social programs that align with leadership and socio-political goals [39]. From the studies above Islamic moderation can be concluded as a way of practicing Islam that comes from the Quran, and Sunnah, which means the middle, not too radical and liberal, prioritizing moderate values, balanced, tolerant, upright values and inviting to do good and preventing disobedience. Islamic moderation is incorporated into education through curriculum, media literacy, teaching materials, and learning.

Cyberterrorism is a cyber-attack that utilizes computers and network technology in cyberspace to carry out extremist activities that must be contained early on and should not be taken lightly because they are organized by forming special groups [40]. Cyberterrorism is a new cybercrime with its scenario, characteristics,

goals, and attributes. It began to emerge in the 1980s through cyberspace (online networks and computers), threatens both the physical and virtual worlds [41], [42]. Cyberterrorism is the convergence of cyberspace and terrorism. It refers to attacks and threats against computers, networks and the information stored on them to intimidate or coerce governments or people into specific political or social goals. A seizure can be called cyberterrorism when it results in violence against people or property or creates fear. Such include severe infrastructure attacks, disrupting of non-essential services, explosions, causing death, injury bodily, and severe economic loss [43]. The elements behind cyberterrorism are ideology, politics, digital technology misuse, the purpose of frightening, people violence, property, criminality, civilian targets, terror group/organization mission, and dehumanization [44]. In real life, cyberterrorists want to damage organisations, infrastructure, airports, and communities. They attack websites, domains, and computer viruses in the cyber world [45], [46]. Social media can be a powerful tool for extremists to promote radical ideologies and propaganda materials. They use social media to spread terrorism propaganda, fundraising, recruitment, mobilisation, planning, and coordination. Terrorist groups use Facebook and the like, as these social media platforms are the most popular worldwide, with millions of users [47]. Cyberterrorism from the above studies can be concluded as terrorism movements, attacks, and crimes committed through cyberspace. Cyberterrorism is a new phenomenon that refers to attacks on computers, networks, and information, which intimidate, incite violence against people and property and cause fear to spread through various digital media and platforms. The importance of studying islamic moderation in education to prevent cyberterrorism. The current digital era requires analysis and high technology-based solutions to prevent, detect, and secure the nation's generation from the threat of cyberterrorism [48]. The key to prevent cyberterrorism is not enough sophisticated digital technology. Still, it also requires preventive methods through education, digital literacy, and strengthening islamic moderation in schools and universities by mainstreaming islamic values that provide mercy for all [49]. This background generally explores islamic moderation in education to prevent cyberterrorism, which is reviewed and analysed using the systematic literature review (SLR) method. The results of this research are expected to provide a complete picture of islamic moderation in education to prevent cyberterrorism. Based on the background and keyword mapping above, the researcher asked three research questions: i) how is the concept of islamic moderation in education? ii) how is the cyberterrorism phenomenon? and iii) how is the islamic moderation's role in preventing cyberterrorism in education?

2. METHOD

2.1. Research design

This research uses an SLR method to describe and analyse Islamic moderation in education to prevent cyberterrorism. The research flow is identifying the latest literature compatible with Islamic moderation in education to avoid cyberterrorism from concepts, phenomena, and prevention on the Scopus database. SLR, in this study applies the preferred reporting items for systematic reviews and meta-analyses (PRISMA) technique to identify, filter, test eligibility, include data for analysis, and present in narrative form. The stages are identification, screening, eligibility and inclusion according to the results of the data reviewed in recent articles [50], [51].

2.2. Inclusion and exclusion criteria for selection of publications

At the inclusion and exclusion stage, several criteria were determined: i) articles published in 2018-2022, ii) articles indexed by Scopus database, iii) the articles searched are about Islamic moderation in education to prevent cyberterrorism, iv) article searches use the publish or Perish 7 application by entering the API Key, v) the articles are in English, and vi) the studies were only scientific articles, not dissertations, theses, conference proceedings, and book chapters.

2.3. Screening and eligibility assessment for data analysis

At the stage of screening and eligibility assessment for data analysis, screening of literature findings from Scopus was carried out on December 22, 2022. Screening literature on titles aspects, abstracts, and keywords. Determination of keywords in different searches to get great articles. From the findings, 1,252 pieces from the Scopus database were published from 2018-2022. The breakdown of each keyword and the number of articles from searches through the publish or Perish 7 application are "Islamic moderation" 106 articles, "Islamic moderation in education" 14 articles, "Islamic terrorism" 200 articles, "Islamic cyberterrorism" 3 articles, "strengthening Islamic moderation in education" 1 article, "strengthening Islamic moderation" 3 articles, "religious moderation" 182 articles, "religious moderation in education" 16 articles, "cyberterrorism" 88 articles, "cyberterrorism phenomenon" 3 articles, "cyber terrorism phenomenon" 23 articles, "cyberterrorism in education" 8 articles, "terrorism in education" 200 articles, "digital terrorism" 200 articles, "prevention of cyberterrorism" 5 articles, "prevention of terrorism" 200 articles, and the quantity being 1,252 articles.

From the 1,252 articles, the same ones were discarded, and then 55 papers were selected and entered into Mendeley, then saved in RIS format. The RIS file was then entered into the VOSviewer application for initial network mapping of theme relevance. The procedure for entering into VOSviewer are: i) creating a map based on bibliographic data, ii) reading data from the reference manager file, iii) selecting a file from a folder, iv) choosing the type of analysis and count method, namely type of analysis: co-occurrence, unit of analysis: keywords, and counting method: complete counting, v) verifying selected keywords, and vi) finishing. The initial thematic association analysis results show that Islamic moderation in education to prevent cyberterrorism has a very complex association pattern in Figure 1.

Figure 1 show that discussions and studies related to islamic moderation in education to prevent cyberterrorism are very close to studies such as the concept of Islamic moderation in preventing cyberterrorism in education, cyberterrorism, cyberterrorism phenomenon, terrorism, and religious moderation. Some of the keywords that have an indirect relationship to the theme of the study are wasatiyyah, peaceful coexistence, counter-terrorism, civil society, dutch, big data analytics, Islamic education, Indonesia, religiosity, Islam, fear of terrorism, Cirebon women ulama, Islamic boarding school, and religious education. Based on the mapping of 217 keywords in VOSviewer occurrences, it was found that the most studied themes were Islamic moderation 54 keywords, cyberterrorism 31 keywords; the concept of Islamic moderation in education 17 keywords; cyberterrorism phenomenon 14 keywords, Islamic moderation in preventing cyberterrorism in education 15 keywords, and the rest under 8 keywords were not studied.

2.4. PRISMA flow diagram

Pay attention to Figure 2 the article search process with the PRISMA flowchart. To facilitate the search for articles, researcher use the PRISMA protocol scheme. The four PRISMA paths include identification, screening, eligibility, and inclusion. Article findings through publish or Perish 7 on the scopus database totalled 1,252. Furthermore, the same article was checked based on keywords and the remaining 351 articles. The similarity of articles is not based on databases because this study is only the scopus database, but the resemblance is seen from the keywords used. The same theme is 901. Of the 156 articles, 81 irrelevant reports were discarded, then 75 full-text articles were selected, and finally, 54 papers were selected according to the research question in terms of title, abstract, keywords, and article substance. The next step is to enter the RIS file from mendeley into the NVIVO 12 plus application to be analysed, reviewed, and the results are presented according to the research question.

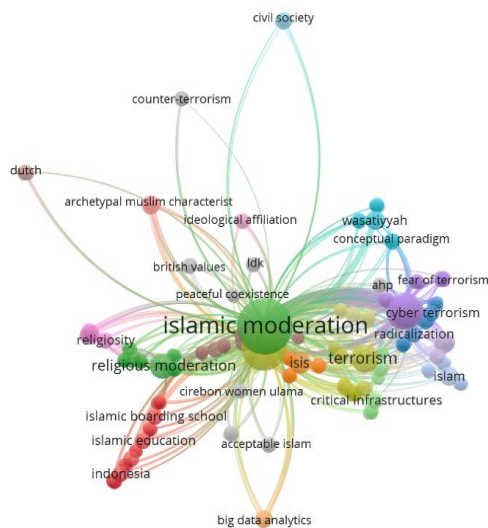


Figure 1. Initial network visualisation

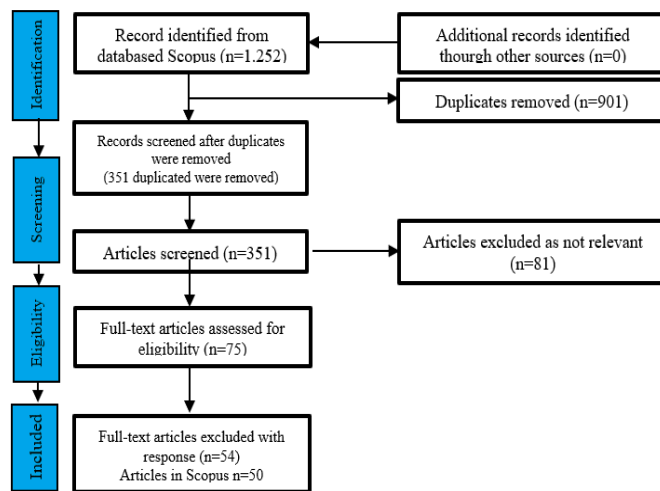


Figure 2. PRISMA flow diagram for systematic review [52]

3. RESULTS AND DISCUSSION

Before presenting the findings according to the research questions, the article findings based on author, journals (name, volume, edition, year, and author), method, country, and relevance to the research questions (RQ), namely RQ (1) the concept of Islamic moderation in education, (2) the cyberterrorism phenomenon, and (3) the Islamic moderation’s role in preventing cyberterrorism in education are presented Table 1. Table 1 presents the journal findings, including the journal name, volume, edition, and year of

publication. The method presents the approach, type, or type of research method/technique used in the research in the article. The country point explains the country of research, not the author's home country. Meanwhile, in the research question column, explain the relevance of the substance of the article to the three research questions asked.

Table 1. Article findings and journal details, method, countries, and relevance to the research question

No	Journals	Method	Countries	RQ
1	Asian security [53]	Qualitative studies	Indonesia	3
2	Journal of theoretical and applied information technology [54]	Analytical hierarchy process	Indonesia	2
3	Revista chilena de derecho y tecnología [55]	Qualitative	Germany	2
4	Asian security [56]	Qualitative	Malaysia	3
5	Personality and individual differences [57]	Multigroup analysis	Pakistan	2
6	Qudus international journal of islamic studies [58]	Qualitative	Indonesia	1
7	International journal of recent technology and engineering [59]	Likert scale	Malaysia	2
8	International journal of cyber warfare and terrorism [60]	Qualitative	New Zealand	2
9	Global crime [61]	Survey	Australian	2
10	Humanities and social sciences reviews [62]	Quantitative	Malaysia	1
11	Opcion [63]	Qualitative	Malaysia	1
12	British journal of religious education [64]	Research-policy	Netherland	3
13	Education sciences [65]	Exploratory study	Middle East	1
14	Studies in conflict and terrorism [66]	Analytical method	USA	2
15	Qudus international journal of islamic studies [67]	Content analysis	Indonesia	2
16	Pertanika journal of social science and humanities [68]	A critical review and analysis	Indonesia	3
17	Qudus international journal of islamic studies [69]	Descriptive qualitative	Indonesia	3
18	Journal of islamic marketing [70]	Quantitative	Indonesia	1
19	Democracy and security [71]	Qualitative	Portugal	2
20	Cyberpsychology, behavior, and social networking [72]	Experiment	Israel	1
21	Social identities [73]	A systematic review	Several countries	1
22	Computers and security [74]	A literature review	Several countries	2
23	International journal on semantic web and information systems [75]	Internet data analysis methodology	Mexico	2
24	Teaching and teacher education [76]	Descriptive-explanatory	Spain	3
25	Archive for the psychology of religion [77]	Empirical study	Indonesia	3
26	Journal of public affairs [78]	Quantitative	Pakistan	3
27	Qudus international journal of islamic studies [79]	Phenomenology	Indonesia	3
28	SEARCH journal of media and communication research [80]	Netnography	Indonesia	2
29	Critical social policy [81]	Investigation method	England	3
30	Hamdard islamicus [82]	Literature review	Several countries	1
31	Journal of Indonesian islam [83]	Content analysis method	Indonesia	3
32	Indonesian journal of islam and muslim societies [84]	Qualitative	Indonesia	1
33	Journal of contemporary criminal justice [85]	Data compilation reports	Several countries	2
34	Journal of global security studies [86]	Mixed methods	France	1
35	Indonesian journal of islam and muslim societies [87]	Qualitative and quantitative	Middle East and African	1
36	Qudus international journal of islamic studies [88]	Qualitative	Indonesia	3
37	Educational philosophy and theory [89]	Compile research	Several countries	3
38	Journal of business ethics [90]	Likert-scale-based online survey	Indonesia	1
39	HTS teologiese studies/theological studies [91]	Grounded research analysis	Indonesia	1
40	Indonesian journal of islam and muslim societies [92]	Qualitative	Indonesia	1
41	Journal of common market studies [93]	Discursive analysis	European	3
42	Journal of social studies education research [3]	Qualitative	Indonesia	3
43	Australian journal of international affairs [94]	Combined analysis	Palestina	1
44	Behavioral sciences of terrorism and political aggression [95]	Literature review	Several countries	2
45	International journal of evaluation and research in education [96]	Qualitative	Indonesia	3
46	Heliyon [97]	Quantitative	Indonesia	2
47	AHKAM [98]	Qualitative	Malaysia	3
48	Journal of islamic thought and civilization [99]	Qualitative and quantitative	Malaysia	1
49	Religions [100]	Qualitative	Indonesia	3
50	Religions [101]	Multiple regression analysis	Indonesia	3
51	Journal of community and applied social psychology [102]	Experimental study	Australia	3
52	Studies in conflict and terrorism [103]	Empirically study	Austria	2
53	Ethnic and racial studies [104]	Study group interview	Netherlands	3
54	HTS teologiese studies/theological studies [105]	Qualitative	Indonesia	1

3.1. Concept of islamic moderation in education

Islamic moderation is defined as a middle way of religion, tolerant, fair, and balanced, as an implementation of *ummah wasatan*, which refers to surah Al-baqarah verse 143, which is developed in education through Islamic moderation personality (IMP) [62]. Prophet Muhammad defined Islamic

moderation as the Islamic way of peace and building social order [99]. Islamic moderation (*wasatiyyah Islam*) is a middle way of religion, integrating *hablumminallah* (theocentric) and *hablumminannas* (anthropocentric) according to the *ummattan wasatan* recommendation in the Quran and Sunnah in the field of creed and sharia taught in education [63], [91], [92]. Pesantren in Indonesia developed Islamic moderation by acculturating local culture with pesantren (Islamic) values that mainstream equality, cooperation, independence, peace, deliberation, tolerance, and patriotism [68], [105]. Islamic moderation is very accommodating to local cultures, such as in Kudus, Indonesia, which maintains Islamic traditions and the teachings of Sunan Kudus through the practices of *Bulusan*, *Buka Luwur*, *Dandangan*, *Kupatan*, and *Syawalan* [58]. Islamic moderation impacts the formation of tolerant muslims, religious commitment, health services, halal guarantees, and good deeds to others [70], [79].

According to the Quran, Islamic moderation is a religious concept with the main content of balance, justice, achievement, excellence, tolerance, patience, and humility. Realizing Islamic moderation requires muslim moderation agents either in education or in society [73], [90]. Islamic moderation comes from the Quran. Since long ago, muslims have lived in peace, building peaceful relations between nations, religions and the world. Terrorists who tarnish the values of Islam must be countered and straightened out by returning to the Quran, which invites peace [82], [94]. Several universities in Indonesia are designed based on pesantren that mainstream Islamic moderation. Through ideologization, theory, programs, activities, acculturation, an eclectic curriculum, accommodating local culture, non-violence, tolerance, and national commitment [84]. Education in the Middle East and Africa teaches Islamic moderation as the fundamental concept that Islam should be in the middle ground on all matters. Muslims should not be extreme (*ifrat*) and liberal beyond limits (*tafrit*) because moderate Islam is the fairest [87].

3.2. Cyberterrorism phenomenon

Cyberterrorism is a particular type of terrorism that is spread through cyberspace [55], internet technology, artificial intelligence (AI) [59], YouTube, and Twitter [86], to spread fear, and intimidation, destroy the order of life [95], [103] and occurs due to misunderstanding of religion, political factors, and economics [97]. The Islamic State in Iraq and Syria (ISIS) sympathizers in Indonesia spread radical ideology through the internet, WhatsApp, smartphones, and Messenger [54], in Pakistan, terrorism is applied on the campus of Pakistani cities, Peshawar and Islamabad, in the form of spreading fear to students [57], in New Zealand it is distributed through live streaming videos [60], in Australia, active cyberterrorism is spread through the internet, electronic newspapers, while passive ones through radio and television [61]. Cyberterrorism is a new form of terrorism with goals, perpetrators, methods, impacts, and targets that certain terrorist groups have determined [74], becoming a latent danger that utilizes big data, websites, and the internet that harms individuals, groups, communities, and the state [75]. In addition to cybercrimes and cyberwarfare, cyberterrorism is an extraordinary crime phenomenon in cyberspace that is spread to various targets, including the education community, through modern technological devices [71], that are systematically spread with the support of information technology, politics, certain ideologies, and weaponry [66], through cyber media, educational institutions, curricula, and teaching materials [67], to terrorize, invading emotional responses, stress, and igniting high levels of anger [72]. ISIS spreads the teachings of war, division, cruelty, jihadism, and hostility through the internet, telegram, and the internet mobilizing the masses. Cyberterrorism is the same as in the real world because people communicate and mobilize the masses for propaganda [80]. Al-Qaeda and ISIS, according to mapping global cyberterror networks, spread the most acts of cyberterrorism. From 2012-2015 ISIS committed 56 shows, and Al-Qaeda did 27 acts in 30 countries worldwide [85].

3.3. Islamic moderation's role in preventing cyberterrorism in education

The Indonesian government has made Islamic moderation (religious moderation) a national program incorporated into education to prevent radicalism, intolerance, and terrorism [101]. Prevention of cyberterrorism is carried out through a dialogical approach to Islamic moderation to potentially radical organisations such as hizbut-tahrir Indonesia (HTI), Indonesian muslim students Islamic union (KAMMI) [53], student Islamic da'wah institution (LDK), which is indicated to be close to transnational movements, namely hizbut tahrir and ikhwanul muslim [69]. In Malaysia, Islamic moderation is carried out by minimising citizens' support for ISIS, jemaah islamiah (JI), and *kumpulan mujahideen Malaysia* (KMM) [56]. Islamic moderation learning in elementary schools in the Netherlands is adjusted to the subject, namely, Islamic teachings are only taught to Islamic students, accommodation of local culture, and civic education [64]. Religious education and civic learning emphasize Islamic moderation in the Middle East and some European countries [65]. To maximise the implementation of Islamic moderation, reliable teachers are needed. They must understand digital literacy, be trained to prevent radicalisation on the internet, know solutions to controversies in certain subjects, and detect terrorism propaganda spread to students [76]. To prevent terrorism, teachers in Pakistan are equipped with digital literacy skills and encouraged to instill moderate religion, stress reduction through mediation, and

getting closer to God [78]. Schools prevent digital terrorism in the UK by campaigning for national values, multiculturalism, and rejecting racism, which are substantially the same as universal values in religious moderation [81]. As an important factor in realizing world peace, Islamic moderation education is carried out collectively, cooperation between various groups, mutual forgiveness, eliminating suspicion, respecting differences towards non-muslims [77], strengthening new era education philosophy, digital content security, and digital learning resources from radical narratives in schools [89], digital literacy training, Islamic moderation campaign and peaceful Islam in digital media [102].

Besides Nahdlatul Ulama and Muhammadiyah, Al-Jamiyatul Washliyah is an Islamic organization in Indonesia that rejects terrorism and supports Islamic moderation. In this context, Al-Jamiyatul Washliyah has fatwa terrorism is a crime that destroys civilization and humanity. Terrorism poses a serious threat to the state, security and global peace because it threatens the welfare of the ummah. Al-Jamiyatul Washliyah's educational institutions, followers and sympathisers help prevent terrorism [83], through fatwas that call for peace, moderation, and the abandonment of terrorism [98]. Preventing cyberterrorism is done by countering narratives and deradicalisation through strengthening moderate Islamic values and Pancasila values in students. Mastery of digital media to spread peaceful narratives is also carried out [88]. Islamic moderation in preventing cyberterrorism is only preventive. Educational policies block internet access for real prevention so terrorists cannot break into it. Educational institutions must synergies with the government to strengthen cybersecurity, ideological security, and technology-based religion [93]. The key to prevent cyberterrorism in education are teachers, ustadz, preachers, mosque imams, and school community members. They are tasked with teaching Islamic moderation by inviting students to practice tolerance, moderation, justice, and humanism. If they have strong ideology and character, they will filter themselves automatically because exposure to radicalism through cyberspace is vulnerable to spiritually dry people [104]. In addition to strengthen the values of Islamic moderation, students in madrasah diniyah and pesantren are very safe from cyberterrorism because their time during the day is spent studying the yellow book, memorising the Quran, and learning Islam in depth [96]. Hard-power prevention by the government has not proven to eradicate terrorism. The right solution now is soft power through strengthening national values and religious moderation so that youth have an ideological vaccine to protect themselves from terrorism attacks in the virtual and real world [100].

4. CONCLUSION

Islamic moderation is a way of religion by the principles of the Quran and Sunnah, namely ummah wasatan, which is moderate, tolerant, fair, balanced, and applied to education through mainstreaming moderation values, strengthening ideology, theory, programs, activities, acculturation, and curriculum. The phenomenon of cyberterrorism occurs in various parts of the world, including in education, that is spread through cyberspace to intimidate, spread fear, destroy the order of life carried out by terrorist groups such as ISIS and Al-Qaeda. Islamic moderation plays a role in preventing cyberterrorism in education through ideological approaches to radical organizations, accommodation of local culture, religious and civic education, reliable teachers, digital literacy, national spirit campaigns, Islamic moderation and peaceful Islam in digital media, counter-narratives and deradicalization, mastery of digital media, dissemination of peaceful narratives in digital media, and government soft-power deterrence through strengthening national values and Islamic moderation. Future research needs to explore Islamic moderation in preventing cyberterrorism in depth according to the times.

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