SYSTEMATIC LITERATURE REVIEW ON THE ONTOLOGY REPRESENTATION RELATED THE HADITH CORPUS

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Abstract
Studies on hadith have received a lot of attention since, for Muslims, they serve as a secondary source to the Quran. Although the sanad is a primary area of interest in hadith study, understanding the hadith's content requires knowledge of its matan as well. Ontology, one of the philosophical sciences of knowing, is a study that refers to the reality being investigated. According to this paradigm's ontology, the hadith text is centred and in a normative state. Researchers have attempted to construct ontology based on Islamic knowledge including the Quran, hadith, and others after realising that ontology can reflect a clear form of knowledge or repository that is standard and straightforward. The purpose of this article is to conduct an organised review of the literature on the conception of ontology and hadith corpus. The PRISMA (Preferred Reporting Items for Systematic Review and Meta-Analysis) paradigm was followed during the systematic literature review (SLR) authoring process. By making use of earlier studies, this work adds knowledge and a clear understanding to the conception of ontology and the hadith corpus.

Kata Kunci: *Conceptualization, Hadith Corpus, Literature Review, Matan, Ontology*

INTRODUCTION

Every Muslim is aware that, in addition to the Quran, the Prophet's hadith serves as the primary source for Islamic teachings. In other words, the Prophet's hadith is the primary source of Islamic teachings. The narrations and writings of the Hadith, on the other hand, greatly diverge from those of the Quran. The *sanad* and *matan* of the hadiths are explained in order to better grasp the research and to deepen its meaning. The term "*sanad*" refers to a style of narration that links a hadith to the Prophet Muhammad SAW. As opposed to *matan*, which is anything (the Prophet's words) that culminates in a series of conversations (*kalam*) or a final chain. Hadith research is meant to be a thorough examination of *sanad* and *matan* carried out by hadith scholars in order to establish the veracity of a hadith and whether it originates from the Prophet or not (Solihin, 2018).

Understanding the hadith solely through terminology and epistemology is insufficient to grasp the meaning of the specific hadith. As a result, another aspect of information science, ontology, is examined in this research in order to present the hadith unambiguously, as it includes the values of understanding and the relationship of the meaning, as well as the arrangement of the hadith itself. Nonetheless, the basic meaning of the hadith is preserved (Fageh, 2019). According to Ahmad Tafsir (2013), ontology is used to discuss the fact and structure of something, emphasising the importance of hadith in studying a topic. Ontology has numerous applications in the field of information science. Ontology is a multidisciplinary topic that studies the precise definitions of terms used in a given domain as well as the relationships that promote the development of common conceptualizations of that domain (Thomas, 2018).

Hadith, as is well known, is a source of Islamic law agreed upon by the *ushuliyun* following the Quran. Everything stated in the hadith of the Prophet PBUH will be a reference for all Muslims around the

world (Senin, 2020). One of the hadith's functions is to explain and delineate the laws contained in the Quran. To fully comprehend, define, and classify a subject, it is necessary to study these hadiths.

OBJECTIVES OF RESEARCH

The primary goal of this systematic literature review is to understandably deepen and identify the ontology conceptualization and hadith corpus within the current research works.

METHODOLOGY

This article made use of PRISMA (Preferred Reporting Items for Systematic Review and Meta-Analysis). Despite the fact that PRISMA is a publication standard and is widely used in public health and medicine, its use in our study was acceptable because it helped us formulate precise research questions and allowed us to conduct systematic searches across its 27 elements (Moher et al., 2015). In addition, PRISMA requires a systematic search method comprised of four distinct procedures: identification, screening, and eligibility. This reduces numerous biases and allows for more efficient study synthesis (Howard et al., 2019).

Identification

The process of selecting and varying the best keywords to use when searching for publications is known as identification. Keywords are required during the search process to improve the accuracy of the publications. In order to diversify the keywords, keywords from previous studies, specifically from the databases of Science Direct, Scopus, and Research Gate, were also searched for related words and variations of the primary keywords. The outcomes of this study's identification method are shown in Table 1.

Table 1. Search string for searching database

Databases	Search String
Science Direct (n=85)	("ontology" AND "hadith"), ("ontological" AND "approach" AND "hadith"), ("ontology" AND "conceptualization" AND "hadith"), ("ontology" AND "development" AND "hadith")
Scopus (n= 36)	TITLE-ABS-KEY (("ontology" AND "hadith"), ("ontological" AND "approach" AND "hadith"), ("ontology" AND "conceptualization" AND "hadith"), ("ontology" AND "development" AND "hadith")
Research Gate (n=50)	("konsep" DAN "ontologi" DAN "hadis"), ("perkembangan" DAN "ontologi" DAN "hadis"), ("ontology" AND "hadith"), ("ontological" AND "approach" AND "hadith"), ("ontology" AND
	"conceptualization" AND "hadith"), ("ontology" AND "development" AND "hadith")

Using the keywords chosen, Science Direct, Scopus, and Research Gate were searched for relevant publications. These databases were chosen for a variety of reasons. First, a comparison of databases similar to Science Direct, Scopus, and Research Gate shows that they offer advantages in terms of thorough searches, more reliable search results, and advanced search functionality (Gusenbauer & Haddaway, 2020). Martín-Martín et al. (2018) said that the benefits, in terms of quality control and an organised indexing system shall also be highlighted.

The search strategy begins with the guidance of the purpose of the study. Databases used in this study are Science Direct, Scopus and Research Gate (refer Table 1). The goal of using these databases is to make it easier to collect past studies related to studies. The search is carried out using the terms that correspond to the study's title, which are the terms that are use the Malay language "*ontologi dan hadis*", "*konsep ontologi dan hadis*", dan "*perkembangan ontologi dan hadis*". Whereas English terms are like "ontology and hadith", "ontology conceptualization and hadith", "ontology development and hadith", "ontological approach and hadith", "ontological conceptualization and hadith". The composition of the selected journals is according to the current year so that the previous one follows the year limitation that has been set, which is the period from 2010 until 2022. Table 1 presents the results of the identification process of this study.

To identify publications in these databases (Science Direct, Scopus and Research Gate), advanced searches using fundamental functions such as Boolean Operator (AND, OR), phrase searching, truncation, wild cards, and field code's function were used (Refer Table 1). 36 Scopus, 85 Science Direct and 50 Research Gate papers were successfully found using the keywords, databases, and search methods employed; all of these publications underwent screening as the second stage of the systematic search process.

Screening

Screening is a process that establishes inclusion or exclusion criteria in order to select appropriate studies for the systematic literature review. The screening method was used on a total of 171 publications obtained successfully during the identification process. First, the publication year must have occurred within the last twelve years (2010 - 2022). This time period was chosen for a variety of reasons. First and foremost, it was consistent with the concept of field maturity, as other related papers had successfully gathered reliable data at this time.

Because searches on major databases revealed a significant increase in publications relating to ontology conceptualization and the hadith corpus beginning in 2010, only publications published in Bahasa Malaysia and English were chosen for quality control. This was done to avoid reading and comprehension issues. During this procedure, inclusion criteria were used in this study. Inclusion is critical to ensuring that all chosen papers provide relevant findings to the systematic literature review (see Table 2). The selected publications for this study's findings centre on conceptualising ontologies and the hadith domain. Following the screening process, 110 publications were removed, leaving 60 publications for the next step.
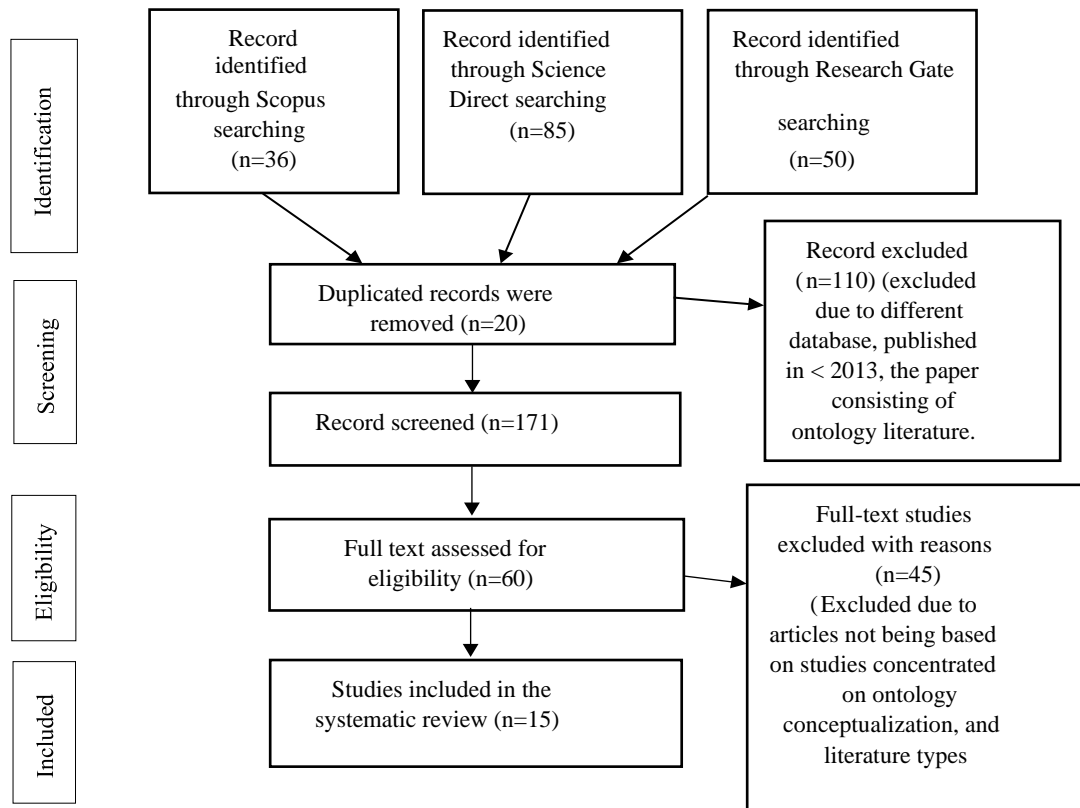
Table 2: Inclusion criteria

Details	Inclusion criteria
Year of publication	Within 12 years (2010-2022)
Publication type	Scholarly publications
Language	Malay and English
Type of findings	Empirical
Focus of findings	Ontology conceptualization and hadith corpus

Eligibility

A second screening procedure known as eligibility was applied to the remaining 60 papers. The eligibility screening procedure is used to make sure that all papers chosen are pertinent and suitable for inclusion in an SLR. A total of 110 papers were removed from the process since they did not concentrate on the hadith and ontology conceptions. The 110 papers were cut since some studies concentrated on ontology concepts, philosophy, and not related to this study. 60 papers were then

put through the quality assessment process, which came after this process. Figure 1 depicts the systematic search procedure used in this investigation using PRISMA.

Figure 1: Flow diagram of the SLR

A total of 15 studies were found to be relevant to the study of concept of ontology and hadith domain. The findings obtained have been summarized systematically as Table 2.

Table 2: Findings for the 15 selected SLR publication

No.	Study	Title	Aim	Methodology	Findings
1	Arbaaeen & Shah, (2021)	Ontology-Based Approach to Semantically Enhanced Question Answering for Closed Domain : A Review	This study aims to review the literature detailing ontology- based method that semantically enhance QA for a closed domain	Aim to review existing searching methods, focusing on the role of different technologies, and highlighting the importance of the ontology-based approach in searches, as well as trying to identify the major technology gaps associated with existing methods	The ontological approach to semantically enhancing QA was not found to be widely embraced as many studies featured NLP and IR processing. Most of the studies reviewed focused on open domain usage, but this study concerns a closed domain
2	Abdelkader, Najeeb, Alnamari & Malik, (2021)	Creation of Arabic Ontology for Hadith Science	To build and implement an ontology for all concepts and main knowledge of Hadith Science	The kernel of the ontology is created with Protégé	All extracted information will be later used in several applications like Hadith graduation, judgment on the

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					validity of Hadith, classification, etc
3	Fairouz, Nora & Nouha, (2020)	An Ontological Model of Hadith Texts Semantic Representation of Hadith	The construction of an ontology-based on Arabic texts and, more specifically, an ontology that represents the semantics of the Hadith text in its original form	Propose an ontology of the Hadith using an approach inspired by the "METHONTOLOGY" methodology	The construction of an ontology that represents the semantics of the Hadiths and the knowledge that can be extracted from these voluminous textual, focusing only on "Wudhu2" related Hadiths
4	Altammami, Atwell & Alsalka, (2020)	Towards a Joint Ontology of Quran and Hadith Towards a Joint Ontology of Quran and Hadith	Aims to enumerate ontologies are evaluated using a corpus-based approach to visualize the overlap between these ontologies and the Hadith	Qualitative and Quantitative method	Shows that one Quran ontology could be used as a starting point for a larger scope of an Islamic ontology that covers both the Quran and Hadith
5	Rosalina Othman, Siti Fatimah Mohd Tawil (2018)	Ontology Development for Zikr and Doa al-Ma'thur at Wisdom Level	Aim of this paper is to present on the ontology development for Zikr and Doa al-Ma'thur at wisdom level, Zikr and Doa al-Ma'thur	Ontology based on Protégé	Users could add to their list of Zikr and Doa al-Ma'thur memorization while going through their daily life
6	Massry, (2018)	An Ontology-based Approach to Support Semantic Search in Hadith (Zakat Domain)	An ontology based approach for supporting semantic search from Hadiths (zakat field) to enrich Islamic electronic content in retrieving information using semantic web	Quantitative study, building an ontology	Improve the process of retrieving the Hadiths and greater accuracy in the results
7	Juliyana Junaidi et.al (2017)	Expanding Hadith Understanding using Ontology	This study aims to propose an ontology based on hadith	Qualitative study and developing ontology	Indicate that the hadith could be categorized into several concepts which are Allah, Belief, and Shariah. Allah, Belief and Shariah have been recognized as crucial concept in Islamic knowledge
8	Amir Hamzah Jaafar & Noraini Che Pa. (2017)	Hadith Commentary Repository: An Ontological Approach	Aim to present the development process of the Hadith Commentary Ontology and tested the ontology against the purpose of the ontology	Qualitative study and ontological approach	Contribution of this research is that the ontology can support the storage of Hadith Commentary which is not currently available and we foresee that with the availability of the hadith commentary ontology will further help ontological based

					repositories to integrate and provide a base for an online hadith corpus and linkages among Islamic related ontologies.
9	Asma Al-Rumkhani et al. (2016)	TibbOnto: Knowledge Representation of Prophet Medicine (Tibb Al-Nabawi)	Build a domain-specific ontology (Tibb Al-Nabawi ontology) to present the Prophet's medicine in a semantic ontological representation	Domain-Based Ontology	The proposed ontology can be extended in the future to automatically generate treatments for specific diseases according to the Prophet's actions
10	Al-Sanasleh, (2016)	Towards Building a Prophetic Ontology Based on Quran and Hadith	To build the Prophetic ontology which will help to understand most aspects related to Prophets	Qualitative study and using OWL-API, DL-Query, and Protégé	Research on Islamic ontologies is very promising and opens many venues for creative research ideas in the future
11	Alagha & Al-Masri, (2016)	An Ontology Based Approach to Enhance Information Retrieval from Al-Shamelah Digital Library	This work presents Onto-ADL, a system that supports semantic search over a section of Al-Shamelah digital library	Quantitative study and development of ontology	The Onto-ADL achieved 83% recall and 66% precision while the ADL system achieved 70% recall and 36% precision
12	Rebhi Baraka & Yehya Dalloul. (2014)	Building Hadith Ontology to Support the Authenticity of Isnad	To build a domain specific ontology (Hadith Isnad Ontology) to support the process of authenticating / judging Isnad	Qualitative study and ontology development	The developed ontology will be used (in a future work) to automatically generate a suggested judgment of Hadith Isnad
13	Dalloul, (2013)	An Ontology-Based Approach to Support the Process of Judging Hadith Isnad	To build an ontology- based Isnad Judgment System (IJS) that automatically generates a suggested judgment of Hadith Isnad. It based on the rules that Hadith scholars follow to produce a suggested judgment	Qualitative study and ontology development	The ontology supports the process of Isnad judgment. We evaluated the ontology using Task-Based framework it indicate that the accuracy of using the IJS ontology is 100%.
14	Saidah Saad et al. (2011)	A process for building domain ontology: An experience in developing Solat ontology	To present a discussion on the process and the product of an experience in developing ontologies in the field of Islamic knowledge which focuses on the Solat	Qualitative study and ontology development	Initial step as an efforts to develop ontology-based Al-Quran and related knowledge that should be taken into account

15	Azmi & Badia, (2010)	E-Narrator – An Application for Creating an Ontology of Hadiths Narration Tree Semantically and Graphically	Aims to report on e-Narrator, an application that parses a plain Hadith text and automatically generates the full narration tree	Quantitative study and building ontology	A transformation mechanism based on semantic web ontology to represent the narration chain in a standard format and then graphically render its complete tree

Two of the fifteen selected publications were published in 2021, two in 2020, two in 2018, two in 2017, three in 2016, one in 2014, one in 2013, one paper published in 2011, and one paper published in 2010. From the 15 papers, 1 was published in each of the following, respectively: *The Journal of Information, International Journal of Advanced Computer Science and Applications, Proceedings of the 6th International Conference on Computing and Informatics, International Journal on Islamic Applications in Computer Science and Technology, 8th International Conference on Islamic Applications in Computer Science And Technology, Procedia Computer Science, IUG Journal of Natural,   Journal of Computational and Theoretical Nanoscience*,   *Arabian Journal For Science And Engineering*, *International Conference on Electrical Engineering and Informatics (July 2011, Bandung, Indonesia) and Engineering Studies , Conference paper of International Journal of Advanced Trends in Computer Science and Engineering* and 2 thesis writing from the *Princess Sumaya University for Technology King* and *Islamic University of Gaza.*

According to Table 2, the literature highlights were carefully selected and prepared based on the years 2022-2010, with just 15 works connected to and in agreement with the research study. According to Massry (2018), it is critical to build an electronic system that promotes access to these hadiths and retrieval, as well as to elucidate the relationships between hadith and how it connects. The limited works on Islamic Semantic Web applications are likewise insufficient. As a result, utilising an ontology-based strategy to allow semantic search using hadiths is an excellent way to enrich Islamic electronic material when accessing information via the semantic web. On the other hand, it indicates that the hadith could be categorized into several concepts which are Allah, Belief, and Shariah Allah, Belief and Shariah have been recognized as crucial concept in Islamic knowledge (Juliyana Junaidi et.al (2017).

Next, many of the studies evaluated focused instead on NLP and information retrieval (IR) processing, hence an ontological approach to semantically enhancing QA was found to be used in a limited fashion (Arbaaeen, 2021). Thus, the system enables users to engage with the ontology to enquire about Prophets and receive replies from two reliable sources: the holy Quran and Prophet Muhammad's (PBUH) hadith (plural of Hadith) narrated in Sahih Al-Bukhari, the Prophet's book (Al-Sanasleh, 2016). Meanwhile, Alagha & Al-Masri, (2016) believe that focusing on how ontology-based reasoning might result in intelligent solutions that satisfy the user's interests would eventually aid in this subject. For instance, there are articles that focusing on building a specific domain of ontology which are the ontology development for *Zikr* and *Doa' al-Ma'thur* at wisdom level, *Zikr* and *Doa' al-Ma'thur*. Users could add to their list of *Zikr* and *Doa' al-Ma'thur* memorization while going through their daily life (Rosalina Othman, Siti Fatimah Mohd Tawil (2018). In addition, there are example of building a domain-specific ontology (Tibb Al-Nabawi ontology) to present the Prophet's medicine in a semantic ontological representation. As result, ontology can be extended in the future to automatically generate treatments for specific diseases according to the Prophet's actions (Asma Al-Rumkhani et al. (2016). Also, an example in developing ontologies in the field of Islamic knowledge which focuses on the *Solat* by Saidah Saad et al. (2011).

According to Amir Hamzah Jaafar and Noraini Che Pa (2017), ontology can support the storage of previously unavailable hadith commentary, and the availability of the hadith commentary ontology will further assist ontological based repositories in integrating and providing a foundation for an online hadith corpus, as well as linkages among Islamic related ontologies. Furthermore, developing an ontology-based Isnad Judgment System (IJS) that automatically generates a suggested Hadith Isnad

judgement. It is based on the rules followed by hadith experts to produce a suggested verdict. A prototype of the technique was developed in order to offer proof of concept for the requirements and to validate its accuracy (Dalloul, 2013). According to Rebhi, Baraka, and Yehya Dalloul (2014), developing a domain specific ontology (Hadith Isnad Ontology) could aid in the process of authenticating or assessing Isnad. The ontology was assessed using a hadith example and DL-Queries. In the future, the created ontology could be utilised to automatically construct a suggested judgement of hadith Isnad. As a result, the concept of evaluating hadith from an ontological standpoint is well understood.

Following that, Fairouz, Nora, and Nouha (2020) stated that the building of an ontology that captures the semantics of hadiths and knowledge may be retrieved from these vast textual sources of information in Arabic. This will eventually aid the displayed visualisation of hadith keyword overlaps and Quran ontology concepts (Altammami, Atwell & Alsalka, 2020). For example, in the future, the suggested ontology could be modified to automatically develop cures for certain ailments based on the Prophet's activities (Al-Rumkhani, Al-Razgan & Al-Faris, 2016). Therefore, an application on building an ontology based can help in a way of transformation mechanism based on semantic web ontology to represent the narration chain in a standard format and then graphically render its complete tree. In conclusion, this study's systematic literature analysis of ten works demonstrated that the ontology conceptualization and hadith domain have undergone extensive inquiry and will be updated in the future as it can benefit others in these fields.

DISCUSSIONS

Concept of Ontology

The term ontology derives from a Greek word that consists of two words: "onto" meaning "that is" and "loggy" meaning science or teaching. The science or teaching of being is known as ontology. Ontology, in its most basic form, is the theory of being the object of philosophical investigation, both definite and non-existent or unlikely to exist. But, in essence, Rudolf Goclenius coined the term ontology in 1636 A.D. Cristian Wolff separated metaphysics into two categories along its development: general metaphysics and particular metaphysics. Metaphysics is typically regarded as a branch of ontology. Ontology studies the fundamental nature of what is truly real, as well as the various ways in which entities (exist) from various logical categories (physical, universal, and abstract objects) can be claimed to exist within traditional frameworks. Ontology is regarded as a theory of the general principles of what exists, whereas recently ontology has been regarded as a theory of what exists (Halik, 2020). In the context of this review, ontology refers to explaining the semantics of data and providing a uniform means of communication that allows various parties to understand each other (Massry, 2018). This stems from the perspectives of the discipline of information science.

According to Ahmad Tafsir (2013), ontology is a term used to discuss the nature and structure of something. Ontology is a tool for bringing a subject to a practical level. Ontology is also known as a high region for a subject's reliance (Kartawiguna, 2015). According to Staab and Studer (2013), ontology is extremely essential in the field of information searching. One application that has lately gained popularity is the so-called semantic web, in which ontologies are expected to play a key role in creating common terminology amongst agents by guaranteeing that various agents have a common understanding of the terms used in semantic markers. According to Nowroozi, Mirzabeigi, and Sotudeh (2018), ontology can be more useful in representing synonymous relationships, as well as improving and assisting searchers in their grasp of the notion of ontology. Hence, Salim, Hashim, and Noah (2011) investigated how ontology and semantic web technology could be used to solve retrieval challenges for Islamic resources. They discovered that ontology might help with better information retrieval as well as contribute to improved knowledge management. As result, an ontology-based knowledge system applied to any domain or corpus would assist users to conduct precise searches for getting relevant results.

The Hadith Corpus

Hadith are oral traditions of Prophet Muhammad's words and acts (peace be upon him). The traditional Muslim school of thought sees Hadith as a significant tool for interpreting the holy Quran and an integral component of all legal matters (Baraka & Dalloul, 2014). According to Altammami, Atwell, and Alsalka (2020), each hadith is a stand-alone remark or act by the prophet that was later documented, collected, and assembled into books where scholars have classified them into categories based on their extensive knowledge and understanding of hadith. The Hadith is divided into two parts: the narrative itself, known as *matan*, and the chain of narrators through whom the narration has been conveyed, known traditionally as *Isnad*. The Isnad is a chronological list of the narrators, with each mentioning the person from whom he heard the hadith all the way up to the Matan's prime narrator, followed by the Matan itself (Dalloul, 2013).

According to Sholahuddin (2008), the hadith is referred to as al-Jadid or "the new" in contrast to al-Qadim or "the ancient" in his study. Hadith is commonly thought to be something derived from the Prophet (peace be upon him). While hadith is also known as *sunnah*, there is no distinction between the two in concept. Hadith, on the other hand, refers to the text of hadith found in hadith collections, whereas *sunnah* relates to what Muslims do in their daily lives. According to Ibn Taymiyyah, both hadith and *sunnah* have the same meaning, which is everything that happens to the Prophet after prophethood, including words, deeds, and decrees (Fageh, 2019).

According to Altammami, Atwell, and Alsalka (2020), the hadith structure is particularly unique in that it is divided into two halves, as seen in Figure 1. The Isnad is shown in bold to reflect the reverse chronological line of scholars who verbally communicated the Hadith prior to it being written down in books. Matan, which is the real teaching or prophetic words, is frequently followed by the Isnad.

Figure 2: Hadith example, *isnad* in bold followed by *matan*

> ***Yahya bin Bakir told us that Alith told him from Aqeel from Ibn Shihab who said Anas bin Malik told me that prophet peace be upon him (PBUH) said, "Whoever loves that he be granted more wealth and that his lease of life be prolonged then he should keep good relations with his kith and kin."***

Various scholars have provided commentary on Hadith. It describes and explains the hadith, especially for non-native Arabic speakers. Without commentary, the lateral meaning of the matan (text of the hadith) can be comprehended all the way back to the original scope, which may result in an inaccurate interpretation (Amir Hamzah Jaafar & Noraini Che Pa, 2017). According to Basid's (2016) paper, "Takhrij al-Hadith in Perspective of Ontology and Axiology Studies of Hadith Science," understanding hadith requires more than just a lexicon and a hadith book as a reference. This is due to the fact that hadiths are compiled in numerous hadith volumes. As a result, Takhrij al-hadith appears to be a method for tracing the original source of a hadith.

This approach is used in two ways: traditional (*sanad* and *matan*) and modern (computer). Fazlur Rahman (2020) defined *sunnah* as a conceptual foundation. The importance of comprehending a conceptual base is related to the understanding of the evolution of hadith or during mediaeval Islam, where the word hadith was always identified with practical norms or behaviour models contained in the hadith (Suryani, 2020). *Al-sunnah* is a source that elaborates on the explanations found in the Quran and serves to strengthen the truth of its teachings. Through His Messenger, al-Sunnah has demonstrated that the teachings of Islam contained in the Quran are applicable in all human life systems throughout the ages (Aminudin, Mohd Radzi & Nik Yusri 2006).

The Relationship between the Ontology Conceptualization and Hadith Corpus

In his paper, Solihin (2018) explains the ontology of hadith in terms of hadith research. The first case is presented regarding the significance of the sanad and the matan of the hadith in order to know the objective of the hadith investigation. As a result, the study offers hadith-based critique of the *sanad*. *Sanad* is a form of narration that can link the matan of hadith to the Prophet, whereas the *matan* of hadith refers to something (the Prophet's words) that concludes in a *sanad*, *kalam*, or with a final *sanad*. Finally, the inquiry of hadith is intended to be a critical examination of the *sanad* and *matan*. Hadiths that are verified by hadith reviewers utilising certain ways to determine if a hadith is from the Prophet or not.

According to al-Shafi'e, the original *sunnah* is the Prophet's sunnah, not as they thought. The original *sunnah* is the sunnah that is expressly given through a clear, formal, and authentic line of transmission known as hadith. The *sunnah* can be known and discovered through the technique of transmission, rather than by tradition from generation to generation (Maimun, 2015). Hadith scholars argue that the definition of *Al-sunnah* is broader and more complete than other meanings in the context of the debate over its definition. The discussion of the group of hadith experts on *Al-sunnah* includes not only the element of *dirayat* but also the sphere of narration. *Dirayat* alone does not encompass the field of narrative.As a result, it is discovered that these hadith scholars have deep skills in the subject of law-hakam as well as abilities in the parts of legal production regulations. As an example, according to Ibn Hajar in the writing of his authentic book, al-Bukhari did not simply collect authentic hadiths. His writing is accompanied by the benefits of fiqhiyyat as well as issues that are quite detailed and elegant as a result of understanding and strength of inference from hadith quality.

According to al-Nawawi, al-Bukhari not only gathered hadith but also studied ahkam (Islamic laws) and used hadith as justifications in each chapter title he desired. According to Islamic scholars, al-fiqh Bukhari's can be found in every chapter description of an authentic book (Aminudin, Mohd Radzi & Nik Yusri, 2006). Hadith research is an in-depth and critical examination of hadith and the chain of transmission through the use of certain methodologies to determine the authenticity of a hadith as evidence of the veracity of Islamic teachings. Hadith is the illuminator or interpreter of the Quran; careful study is required to avoid being deviated and stuck with wrong thoughts. When it comes to ontology, it aids in portraying the hierarchical organisation of knowledge about things by subcategorizing them according to their basic properties. These might be used to the knowledge structure of the hadith domain, which featured significant hierarchical branches.

CONCLUSION

Ontologies are described as the clear formal descriptions of domain words and their relationships. Every knowledge base, knowledge-based system, or knowledge-level agent is committed to some conceptualization, expressly or implicitly. This conception must be founded on something common or well-known in order to allow for frictionless data transfer and mobility. Recognizing that ontologies can represent a well-defined, standardised, and straightforward form of knowledge or repositories, researchers attempted to construct an ontology based on Islamic knowledge, which includes the Holy Quran, Hadiths, and so on, as highlighted by the majority of scholarly works cited in the review (Saad et al., 2010; Azmi & Badia, 2010; Ali, 2013; Khan et al., 2013; and Baraka & Dalloul, 2014).

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REFERENCES

Al-Agha, I. M., & Al-Masri, M. G. (2016). An Ontology Based Approach to Enhance Information Retrieval from Al-Shamelah Digital Library. *IUG Journal of Natural Studies*, *24*(1).

Ali, H. (2013). Ontological Knowledge Management System of Islamic Concepts. *Journal of Independent Studies and Research*, *11*(1), 35.

Al-Rumkhani, A., Al-Razgan, M., & Al-Faris, A. (2016). Tibb Onto: Knowledge Representation of Prophet Medicine (Tibb Al-Nabawi). *Procedia - Procedia Computer Science*, *82*(March), 138–142.

Al-Sanasleh, H. A. (2016). *Towards Building a Prophetic Ontology Based on Quran and Hadith*

Al-Sanasleh, H. A., & Hammo, B. H. (2017). Building Domain Ontology: Experiences in Developing the Prophetic Ontology form Quran and Hadith. *2017 International Conference on New Trends in Computing Sciences (ICTCS)* (pp. 223-228). IEEE.

Altammami, S., Atwell, E., & Alsalka, M. A. (2020). *Towards a Joint Ontology of Quran and Hadith Towards a Joint Ontology of Quran and Hadith. December.*

Aminudin, B. A., Mohd Radzi, O. & Nik Yusri, M. (2006). Konsep Al-Sunnah Menurut Ahli Hadith. *Jurnal Pengajian Umum*, *8*, 1–22.

Amir Hamzah Jaafar & Noraini Che Pa. (2017). Hadith Commentary Repository: An Ontological Approach in Proceedings of the 6th International Conference of Computing & Informatics (Pp 191-198). Sintok: School of Computing.

Anam, N. (2012). Al-Qur'an dan Hadist: Dialektika Sains-Teknologi dan Ilmu Agama. *Al-Adalah*, *16*(2), 213–226.

Arbaaeen, A. & Shah, A (2021). Ontology-Based Approach to Semantically Enhanced Question Answering for Closed Domain: A Review. Information 2021, 12, 200.

Azmi, A., & Badia, N. B. (2010, August). iTree- Automating the construction of the narration tree of Hadiths (Prophetic Traditions). In Natural Language Processing and Knowledge Engineering (NLP-KE), 2010 International Conference on (pp. 1-7).

Baraka, R. S., & Dalloul, Y. (2014). Building Hadith Ontology to Support the Authenticity of Isnad. *International Journal on Islamic Applications in Computer Science And Technology*, *2*(1), 25–39.

Basid, A. (2016). Takhrij Al-Hadis dalam Perspektif Kajian Ontologi Dan Aksiologi Ilmu Hadis. *Tafaqquh: Jurnal Penelitian Dan Kajian Keislaman*, *4*(1), 79–91.

Bilhaq, M. A. M. (2020). Jurnal Holistic al-hadis,. *Jurnal Pendidikan Islam*, *6*(1), 59–90.

Dalloul, Y. M. (2013). An Ontology-Based Approach to Support the Process of Judging Hadith Isnad. *2012 International Conference on Advanced Computer Science Applications and Technologies*, *March*, 1–108.

El-Massry, A. J. (2018). *An Ontology-based Approach to Support Semantic Search in*

Fageh, A. (2019). Analisa Ontologi dan Epistemologi Hadis Perspektif Ibn Taimiyah. *Tarbiya Islamia: Jurnal Pendidikan Dan Keislaman*, *8*(2), 134.

Fairouz, B., Nora, T., & Nouha, A. A. (2020). *An Ontological Model of Hadith Texts Semantic Representation of Hadith*. *11*(4), 367–371.

Gruber, T. R. (1993a). A Translation Approach to Portable Ontology Specifications. Knowledge Acquisition 5(2), 199–220.

Grüninger, M., & Fox, M. (1995). Methodology for the Design and Evaluation of Ontologies (1995). In Proceedings of the International Joint Conference on Artificial Intelligence, Workshop on Basic Ontological Issues in Knowledge Sharing

Gusenbauer, M., & Haddaway, N. R. (2021). What every researcher should know about searching–clarified concepts, search advice, and an agenda to improve finding in academia. *Research Synthesis Methods*, *12*(2), 136-147.
Hadith (Zakat Domain).

Halik, A. (2020). Ilmu pendidikan Islam: perspektif ontologi, epistemologi, aksiologi.

Howard, D. M., Adams, M. J., Clarke, T. K., Hafferty, J. D., Gibson, J., Shirali, M. & McIntosh, A. M. (2019). Genome-wide meta-analysis of depression identifies 102 independent variants and highlights the importance of the prefrontal brain regions. *Nature neuroscience*, 22(3), 343-352.

Jaafar, A. H., Pa, N. C., Hamzah Jaafar, A., & Che Pa, N. (2017). Hadith Commentary Repository: An Ontological Approach. *Proceedings of the 6th International Conference on Computing and Informatics*, *167*, 191–198.

Khan, H. U., Saqlain, S. M., Shoaib, M., & Sher, M. (2013). Ontology based semantic search in Holy Quran. International Journal of Future Computer and Communication, 2(6), 570-575.

Khan, K. S., Kunz, R., Kleijnen, J., & Antes, G. (2003). Five steps to conducting a systematic review. Journal of the Royal Society of Medicine, 96(3), 118–121.

Laclavík, M. (2005). Ontology and agent based approach for knowledge management. Doctor Thesis. Institute of Informatics, Slovak Academy of Sciences.

Lame, G. (2019). Systematic literature reviews: An introduction. *Proceedings of the International Conference on Engineering Design, ICED*, *2019-August* (July), 1633–1642.

Maimun. (2015). Ontologi Sunnah Dan Hadis: Implikasinya Terhadap Perkembangan Pemikiran Hukum Islam. *Asas*, *7*(1), 11–24.

Martín-Martín, A., Orduna-Malea, Thelwall, M. & López-Cózar, E.D. Google Scholar, Web of Science, and Scopus: A systematic comparison of citations in 252 subject categories. J. Inf. 2018, 12, 1160–1177.

Moher, D. Liberati, A., Tetzlaff, J. & Altman, D.G. The PRISMA Group Preferred reporting items for systematic reviews and MetaAnalyses: The PRISMA statement. PLoS Med. 2009, 6, e1000097.

Nowroozi, M., Mirzabeigi, M., & Sotudeh, H. (2018). The Comparison of Thesaurus and Ontology: Case of ASIS&T Web-Based Thesaurus and Designed Ontology. *Library Hi Tech*, *36*(4), 665–684.

Noy, N. F., & McGuinness, D. L. (2001). Ontology Development 101: A Guide to Creating Your First Ontology. Stanford Medical Informatics Technical Report, Stanford Knowledge Systems Laboratory Technical Report, KSL-01-05, Mar.

Saad, S., Salim, N., & Zainal, H. (2009). Islamic knowledge ontology creation. In International Conference for Internet Technology and Secured Transactions, 2009. ICITST 2009. (pp. 1-6).

Saad, S., Salim, N., Zainal, H., & Noah, S. A. M. (2010, March). A Framework for Islamic Knowledge via Ontology Representation. In Information Retrieval & Knowledge Management, (CAMP), 2010 International Conference on (pp. 310314).

Salim, J., Hashim, S. F. M., & Noah, S. A. M. (2011). A Framework to the Development of Islamic Ontology: Symbiosis of Thesaurus and Domain Expert in Ontology Development. In International Conference on Electrical Engineering and Informatics (ICEEI), 2011 (pp. 1-6).

Senin, M. S. B. M. (2020). Hadith Palsu Di Malaysia : Tinjauan Perkembangan Dan Keberadaannya. *Akademi Pengajian Islam Kontemporari, Universiti Teknologi Mara*, 1–13.