

TRIPLE - RELATIONAL LATENT LEXICOLOGY-PHONOLOGY-SEMANTIC “MMRLEXICOLPHONOSEM” ANALYSIS MODEL FOR EXTRACTING QURA’NIC CONCEPT

ASMA ABDUL RAHMAN^{1*} & SARAH HUSNA MAT RASID¹

^{1*} Faculty of Major languages Studies FPBU, University Sains Islam Malaysia, Level 4, FPBU, FPQS Building, Bandar Baru Nilai, 71800 USIM Nilai, Negeri Sembilan, Malaysia.
Correspondent Email: asma@usim.edu.my

Received: 18 February 2022

Accepted: 1 March 2022

Published: 8 March 2022

Abstract: Al Quran is a divine text which represents the purest and most authentic form of the classical Arabic language. In order to understand the meaning of each verse, a deep knowledge of Arabic linguistic is essential. Therefore, our scholars have made their efforts by engaging themselves in the works of explaining al Quran’s words, interpreting its meanings into Arabic and other languages. Currently, more people are interested in knowing the content of al-Quran, especially for non-Muslim, after 9/11 tragedy. Thus, a flexible model that can represent Qur’anic concept is required for people to understand the content of the Quran. In this research, propose a Multi-Relational Latent Lexicology-phonology -Semantic Analysis Model (*MMRLEXICOLPHONOSEM*) based on a combination of Arabic Phonology Semantic and six multiple relations between words, which are synonym, antonym, hypernym, hyponym, homonym and meronym, to precisely extract Qur’anic concept. The existing literatures focus only on very limited relationships between words which could not extract the in-depth concept of Qur’anic without considering the importance Arabic phonology Semantic. Therefore, the objectives of this research are: (1) to analyses and categorize Quranic words according to Arabic phonology Semantic patterns, (2) to propose a new model for extracting Quranic concept using *MMRLEXICOLPHONOSEM*, (3) to investigate phonology semantic relationships between Qur’anic words, and (4) to validate the proposed model with Arabic linguistic, and Qur’anic experts. This research will be conducted qualitatively through content analysis approach a new innovative technological technique. It is expected that the model will come out with a precise analysis for extracting Qur’anic concept. This will be very significant in enhancing the overall Quran’s understanding among the society in Malaysia and Muslim’s world for sustainable society.

Keywords: Multiple Triple-Relational, Latent, Lexicology-Phonology-Semantic, Model Extracting, Qur’anic.

Cite This Article:

Asma Abdul Rahman & Sarah Husna Mat Rasid. 2022 Triple - Relational Latent Lexicology-Phonology-Semantic “Mmrlexicolphonosem” Analysis Model for Extracting Qura’nic Concept. *International Journal of Advanced Research in Islamic Studies and Education (ARISE)*, 2(1), 99-114.

INTRODUCTION

In linguistic study, a concept is referred as a mental structure, which totally depends on relationships between linguistic representatives amongst words and phrases. However, the interchangeable relationship could happen due to the inherent conciseness of natural language.

Therefore, many researchers try to solve this problem using ontology approach and Latent Phonology Semantic Analysis (LPSA) (Chang, K., & Meek, W.Y.C. , 2013); (Ozcan, R., & Aslandogan, Y. A. , 2004), (Rahman, LINGUISTICS STUDIES, 2003-2007), (Rahman, MODERN LINGUISTICS STUDIES , 2018-2019), but it needs some considerations before it can be implemented on Arabic, especially in al-Quran, which represents a special classical Arabic language.

The application of teaching Arabic linguistics by reciting the Holy Quran is almost a necessity for all Muslim community. And it needs careful consideration and understanding so that they do not expect mistakes. The syllables of intonation are different from the syllables of spoken language. The language and its definition according to the ancients and moderns is what Ibn Jinni knew in his book, "The limit of language is sounds by which every people express their purposes" (Ibn Jinni, 1956). The science of intonation is considered an original source of Arabic phonetic study. Spoken speech changes the sound syllable from the written language. It is noted here that the word "merciful" consists of two syllables when stopping, and three syllables when pronouncing or reading, such as rah_i_m_n.

The modern scholars decided that "linguistic sounds are affected by each other in the continuum of speech. A voice to another" (Ibrahim Anis 1981: Nasser Mahmoud t.th). The phonetic study of the ancient Arabs is related to reciting the Noble Qur'an, and understanding its structures, words, and meanings. This fact has been confirmed by Western scholars themselves from Orientalists and others (Ali, 2009).

In modern linguistics, sounds are divided into consonant (vowels) and consonant (consonants). And the sound is consonant if the pronunciation of the consonant passes free air from the mouth. It is also known as the vowel sound, as some call it. It has other names such as the effect and the vowel sound, such as the sound /A/ or /O/. It is silent if the breath that leads to its release encounters an obstacle at some point that obstructs its path until it exits the mouth, such as the sound /L/ or /P/. Consonants are identified at scales that designate the basic normative vowels that are used in most languages. As for the silent sounds, they are determined by the pronunciation and pronunciation characteristics.

It is known that the study of phonemic formation is not limited to the study of the phenomena of sounds only, but also of the speech group in general, such as location, tone, and intonation. Also, Quranic phonetic studies are important in the correct pronunciation of letters, words, and sentences. The science of intonation is related to the study of sound. The science of recitation and intonation includes immersion, endowment, and the provisions of the nun static and others. Importantly, phonology deals with the issues of intonation and the way to teach it. Dr. Mansour bin Muhammad Al-Ghamdi (2001) says in his book Arabic Phonetics: "Tajweed scholars set the rules of intonation and taught them to readers to be passed down from generation to generation, not only in writing but also in practical application. Although we appreciate what has been done in this field, we need a leap in the science of intonation, because contemporary scholars are more familiar with the human body and the vocal apparatus, so they ask for an accurate definition of the acoustic characteristics in terms of sound outputs and how to output them, and the acoustics of Arabic sounds. And he can say that the study of sound has a strong relationship with the science of intonation. However, contemporary scholars were interested in the exits of the letters and their characteristics and qualities.

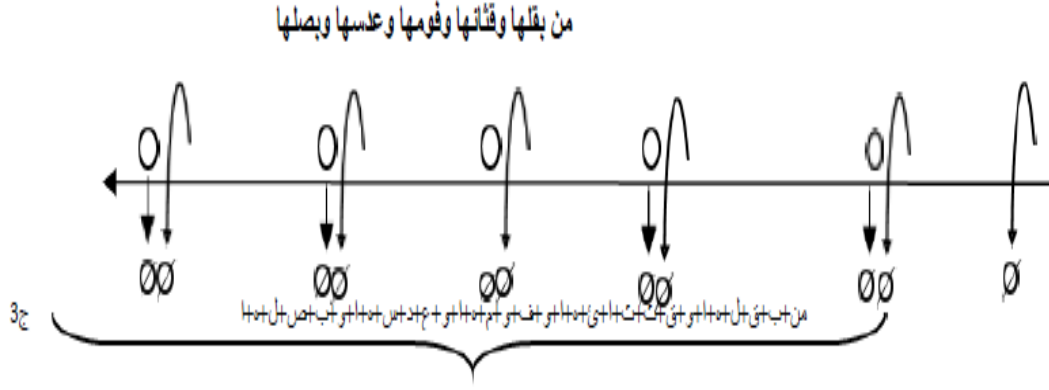


Figure 1: Multi-Relational Latent MMRLEXICOLPHONOSEM formula Analysis by Asma Abdul Rahman

الرموز	المقصود بما
ج	جملة
طس	طرف اسمي
طف	طرف فعلي
س	اسم
ف / فا / مف	فعل / فاعل / مفعول به
ض	ضمير
ضف / ضف إليه	مضاف / مضاف إليه
شج	شبه جملة
د/نسخ	أداة النسخ
تع	أداة التعريف (ال)
م / ح	مبتدأ / خبر

(١) قواعد الحذف Deletion المراد به حذف عنصر من عناصر الجملة لغرض ما، فالرموز المشيرة إلى ذلك كالآتي:

$$a + b \rightarrow b/a \quad \text{أ} + \text{ب} \leftarrow \text{أ} / \text{ب}$$

(٢) قواعد الإحلال Replacement المراد به إبدال عنصر بعنصر آخر، وقد يكون إبدال كلمة بكلمة، وإبدال محل محل. فالرموز المشيرة إلى ذلك كالآتي:

$$a \rightarrow b \quad \text{ب} \leftarrow \text{أ}$$

وهذا يحدث غالباً في تحويل الجملة المبنية للمعلوم إلى المبنية للمجهول حين يُبدل المفعول به محل الفاعل، فصار نائباً للفاعل.

(٣) قواعد التوسع (التمدد) Expansion المراد به تمديد أو توسيع جملة بطرف من أطراف البنية اللغوية.

فالرموز المشيرة إلى ذلك كالآتي:

$$a \rightarrow b + c \quad \text{أ} \leftarrow \text{ب} + \text{ج}$$

وهذا يكون غالباً بإضافة عبارة إلى جملة لإطالتها. فمثال:

(٤) قواعد الزيادة Addition المراد به إضافة عنصر جديد إلى المسند أو المسند إليه مع الحفاظ على المعنى

أو المقصود الأصلي. فالرموز المشيرة إلى ذلك كالآتي:

$$a \rightarrow b + a \quad \text{أ} \leftarrow \text{ب} + \text{أ}$$

وهذا يكون غالباً بإضافة نعت أو توابع أخرى أو أدوات مثل؛ إنَّ وأخواتها، وكان وأخواتها، ولام التوكيد، وهلم جرا إلى جملة كاملة.

ومما نلاحظ أن قواعد التوسع (التمدد) وقواعد الزيادة متقاربة. فاما قواعد التوسع لأجل تكوين الجملة واسعة الأفكار. واما قواعد الزيادة فإنها تحتم كثيراً بالحفاظ على المعنى الأصلي، فالإضافة لا تكون مغيرة للجملة.

وَلَا تَجْهَرُوا لَهُ بِالْقَوْلِ كَجَهْرِ بَعْضِكُمْ لِبَعْضٍ أَن تَحْبَطَ أَعْمَالِكُمْ وَأَنتُمْ لَا تَشْعُرُونَ ﴿٢٠﴾

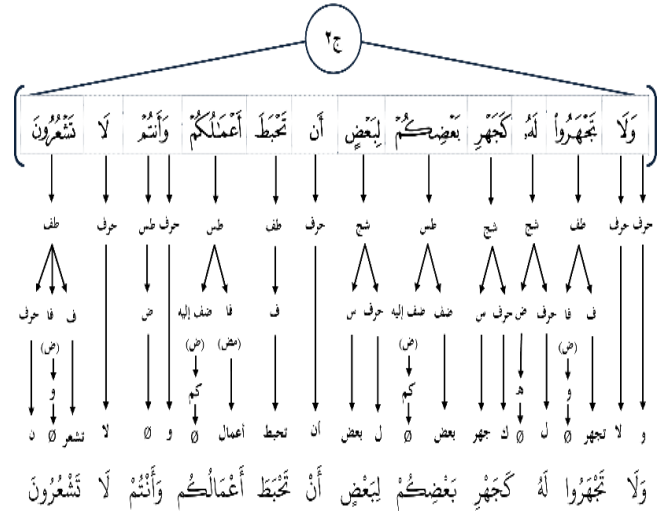


Figure 2: Model of MMRLLEXICOLPHONOSEM in Qur'anic Ontology by Asma Abdul Rahman

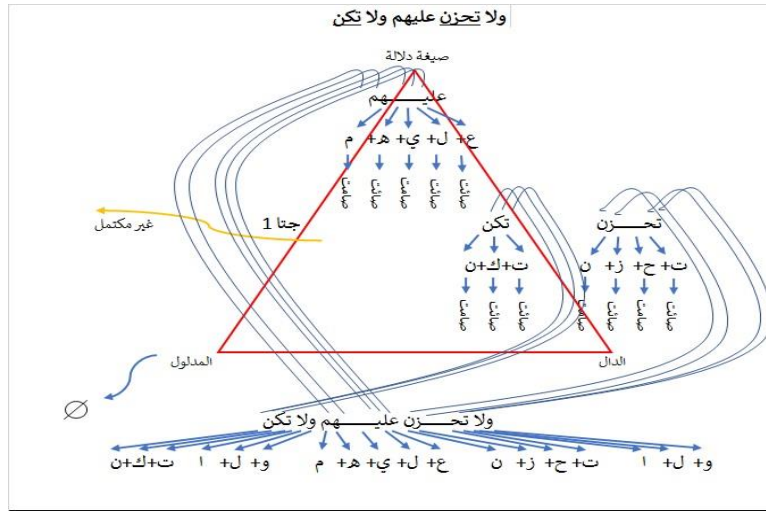


Figure 3: Model of Triple Relation MMRLEXICOLPHONOSEM in Qur'anic Ontology by Asma Abdul Rahman

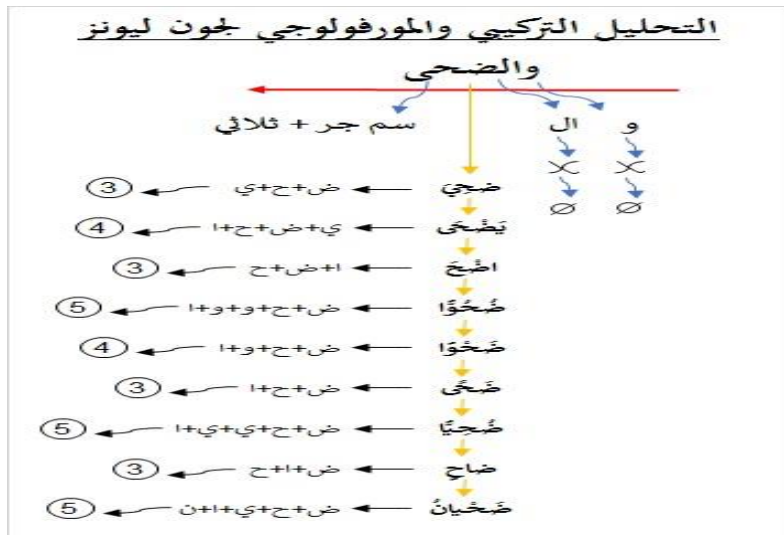


Figure 4: Model of Triple Relation MMRLEXICOLPHONOSEM in Qur'anic Ontology by Asma Abdul Rahman

LITERATURE REVIEWS

Arabic is considered one of the phonologically complex languages. Each word can be derived from roots which have, in most cases, three letters by applying templates construct stems and then attaching them to prefixes and suffixes to obtain a very large number of different surface forms (Amr El-Desoky Mousa & Ralf Schl uter, 2012). Besides that, a single root can be transformed into different word with different pattern, vocalism, and pronunciation (Bassam Al-Salemi & Mohd. Juzaidin Ab Aziz, 2011). The uniqueness of Arabic Semantic makes the combination with LPSA and ontology more significant to extract Quranic concept.

The above model encodes the raw data in a three 3-way tensor to encode multiple word relations, which are synonym, antonym & Hypernym. Each slice captures a particular relation

and is in the format of the document-term matrix in LPSA. The tensor decomposition method was applied to generalize the representation and discover unseen relations between words.

Although this recent work tries to explore concept-based information access via ontology approach and LPSA on natural language (Ozcan, R. & Aslandogan, Y. A., 2004) it has not yet been done in al-Quran, which represents the purest and most authentic form of the classical Arabic language (Rahman, 2003-2007). Muslims believe that words of Holy Quran are divine and eternal. No alteration is whatsoever possible as Allah Almighty Himself has taken into His Hand.

Ontology on the other hand, is defined as a description of the concepts and relationships that can exist for an agent or a community of agents (Ozcan, R. & Aslandogan, Y. A. 2004). The use of ontology facilitates identification of concepts and their linguistic representatives, given a key concept. It is like a dictionary or glossary, but with greater detail and structure.

The existing research show two types of approaches in Qur'anic language computational models based on ontological approach. First, traditional approach which is based on models of Roman language done by Hikmat Ullah Khan, Muhammad Saqlain, Shoaib, & Sher (2013) using English Translation of Holy Quran by Pickthall, and Azman Ta'a, Abidin, Abdullah, Ali and Ahmad (2013) using Syammil Al-Quran Miracle the Reference. These two studies lack accuracy of language because it depends on the translated version of al-Quran.

Second, modern approach is based on an authoritative and rich source of Arabic language, i.e., the Holy Quran. This study uses lexicon ontology development based on the Unified Process for Ontology (UPON), an ontological engineering approach (Maha Al-Yahya & Hend Al-Khalifa, t.th). The study focuses mainly on nouns from the "time" semantic field, which is a plastic noun - having no forms except one.

In the above model, lexicology- phonology- semantic dimensions need to be determined, and then words will be organized into a hierarchical classification with general concepts at the top, and specific at the bottom. Words in the hierarchy are associated with components via ontological relations. This classification structure of the ontology implies that the deeper word moves into the hierarchy, the more arguments the componential formula will have, and therefore the meaning narrows. In contrast, words at higher levels have fewer arguments in their componential formula, and therefore the meaning broadens. This model however did not include the root of words which is the appropriate to Arabic language.

The existing literature shows that there are still gaps in extracting Qur'anic concept because the aspect of Arabic Lexical-Phonology-Semantic and LPSA does not fully utilize. Therefore, to address the above mentioned problem, we propose a new model in extracting Qur'anic concept based on Arabic Lexicology-Phonology-Semantic and Multi-Relational Latent Phonology-Semantic Analysis, using combination of six multiple relations between words.

Here the researchers also are interested in discovering the laws of sound syllables that are useful in her study in the science of intonation, with the discovery of new syllables that appeared in the recitation of the Noble Qur'an.

Dr. Hossam El-Bahnasawy's (2005) study examines that syllable help a lot in making a decision as to the best sound analysis or phonemic group that is phonologically ambiguous. His study shows a discussion of grammatical and morphological studies in changing the syllable

system. This indicates that the study of syllables is important in pronouncing and writing the correct word, which makes the listener able to understand the information.

Inaam Al-Haq Ghazi and Nasser Mahmoud (2017) discuss in his article that the cross-sectional study in the language is very necessary for the quality of performance and improving the pronunciation of words, sentences, and phrases to affect the listener. He said that the cross-sectional study contributes to addressing many linguistic issues and explains them in an explanation that is closer to the nature and reality of language. In addition, this study contributes to the analysis of a specific sound or group of sounds that are acoustically ambiguous. Indicating this, the audio clips are useful in solving problems of correct pronunciation and writing them in the Arabic language in general and finding the recitation of the Noble Qur'an in accordance with the provisions of correct intonation in particular.

It was concluded from this that the emergence of several ambiguous words and sentences leads to a lack of knowledge in pronouncing the correct letters in the Arabic language. Therefore, the study of syllables plays a great role in knowing the phonemic units and preparing the syllabic rules for students in general and those educated in the science of intonation in particular. Also, the emergence of syllabic changes in the rules of intonation, which leads non-native speakers of the Arabic language to lack understanding and knowledge of it.

One of the results of the research is that non-Arabic speakers were unable to pronounce the correct letters, words, and sentences in Arabic. And they did not master the rules of intonation in the recitation of the Noble Qur'an. Hence, the researchers should discover and analyze syllabic laws and rules in modern phonetics that consist in reciting the Qur'an. In addition, the difficulty of pronouncing the correct intonation rulings for the rulings of nun, meem static, madd, edgham, and others.

This difficulty was explained because the morphological lesson is linked to the phonemic lesson, and the science of intonation is not without morphology, and therefore, the learners must know and understand the correct syllabic laws so as not to affect reading errors, and several attempts have been made, among the most prominent of these are Ibrahim Anis (1977), Tammam Hassan (1918), Kamal Bishr (1921), Ramadan Abdel-Tawab (2003), Mahmoud Fahmy Hegazy (1940), Ahmed Mukhtar Omar (2004), Abdel-Sabour Shaheen, Mahmoud Al-Saran, Nihad Moussa, and other contemporary linguists, and at these linguists the level The phonetic is the first step in any morphological, grammatical, or semantic linguistic study, because it deals with the smallest units of language, and by it we mean the sound that it considers raw for human speech. He said: "Studying the phonemic level is the first step towards linguistic truth." Therefore, studies of syllables about the new method in the system of syllables, especially the science of intonation, are still familiar and deep in its approach to understanding and correct pronunciation in the structure of words. This study is for comprehensive memorization of the recitation and recitation of the Noble Qur'an.

The researchers concludes that senior and former scholars did not specify a methodological study, especially in the audio clips in the science of intonation when reciting the Holy Qur'an. They did not specify the system of audio clips that are found in the Holy Qur'an. Ismail Amayreh (2002) pointed out the division of audio syllables into main syllables and sub-syllables. He drew attention here, that the sub-sections are among the increasing sections in the understanding and pronunciation of the Qur'an. As for the modern phonologists, they did not focus the types of vocal syllables to solve the problem of correct pronunciation in

the composition of the Noble Qur'an (Ibrahim Anis, 1975, Kamal Bishr, 2000, Tammam Hassan, 1974 & Ahmed Mukhtar Omar, 2004). This confirms from Mahmoud Al-Saran (1962) that the syllabic structure in one language is not the syllabic structure in another language, and that phonology provides a great help in mastering the pronunciation of the original language and in learning the pronunciation of foreign languages. It is worth noting that most of the phonology books dealt with the subject of syllables in grammatical and morphological studies and presentations in prose and poetry. It did not focus in detail on the system of sound syllables in the science of intonation. It is important that the study of the science of Tajweed in its pronunciation and knowledge is necessary to preserve and serve the Holy Qur'an. Hence, the researchers should analyze the audio clips in the Noble Qur'an about Alif Laam, the definition of the sun, the rulings of Nun static, the rulings of Mim static, the edgham, and the rulings of madd.

REVIEW OF LINGUISTIC REFERENCE BOOKS

1. The book "Al-Lisaniyyat al-Mu'asirah li al-Darisin fi al-Jami'at Al-Maliziyyah" by Dr. 'Aseem Shahadah Ali (2009), published by the International Islamic University Malaysia Research and Publication Center.

In this book, the author has presented topics related to modern linguistics with explanations that are easier to understand by students specializing in Arabic in Malaysian institutions of higher learning. With regard to the systematic etymology of semantic, the author emphasizes two aspects, namely; theory. In the theoretical aspect, the description is to cover the introduction, the things emphasized in this methodology, the methods and methods of the methodology and others related. While in the application aspect, the author presents in general some examples of short sentences that are analyzed using relevant methodologies. This further strengthens the understanding of the methodology. As a result of the observation, it was found that this book is closely related to another reference book on Arabic linguistics produced by Dr. Ahmed Sheikhu Abdus Salam (2006), entitled "Al-Lughawiyat al-'Ammah: Madkhal Islamiyy wa Mawdu'at Mukhtarah", which is also published by the Research and Publication Center of the International Islamic University of Malaysia. The obvious difference is the book written by Dr. 'Aseem is more structured, especially in his presentation relating to the Systematic Methodology of semantic etymology and examples of its application are very clear but do not study in depth in setiap masalah. While the book of Dr. Ahmed Sheikhu, there are many typing errors in the application examples that make it difficult for the reader to understand the description.

2. The book "Ilm Al-Lughawiyat Al-'Arabiyyah: Al-Manhaj Al-Mutakamil li Ta'lim al-Lughawiyat al-'Arabiyyah" by Dr. Asma Abdul Rahman (2001), published by Universiti Sains Islam Malaysia.

This book highlights a very interesting writing in providing information related to the knowledge of Arabic linguistics in particular, in addition to a compact containing related topics that are very suitable for the work of knowledge by students specializing in Arabic. Regarding

the systematic methodology of semantic etymology, the author has presented all the theories related to methodology along with examples of applications. What is interesting and unique about this book is the presentation of the application of the systematic methodology of semantic etymology in some of the holy verses of the Qur'an that are rarely touched by the latest innovative and creative reference books of Arabic linguistics. The application examples shown are very clear and easy to understand.

3. The book "Qawa'id Tahwiliyyah li al-Lughah al-'Arabiyyah" by Dr. Muhammad Ali Al-Khawli (1999), published by Dar al-Falah li Nashr wa al-Tawzi', Amman.

This book specializes in a description of the systematic methods of semantic etymology for Arabic science terms. Through a division into several chapters in this book, the author presents a definition of the systematic method of semantic etymology, and everything related to that method. What is interesting in this book, the author also states some objectives of the use of systematic methods of semantic etymology. In addition, the author also touches on several topics related to the Transformation method that are systematically related to semantic etymology, such as; the methods of Al-Tarkib al-Asasiyy (Basic Phrases or Verses), the method of Al-Mufradatiyyah (Vocabulary), most importantly the method of Al-Tahwiliyyah (Transformation) itself along with the processes of various methods. The author concludes the book by presenting some of his observations on the theory of Transformation methods in relation to systematic semantic etymology. However, the author only touches from a theoretical point of view, without any indication of the application of the method.

4. The book "Al-Lisaniyyat wa al-Lughah al-'Arabiyyah: Namazij Tarkibiyyah wa Dalaliyyah" by Dr. Abdul Qadir Al-Fasi Al-Fahri (1988M), published by Dar Tubaqal li Al-Nashr, Morocco.

The author presents linguistic issues related systematically to semantic etymology with the formation of phrases/sentences and meanings in two book volumes. In volume 1 of this book, the history of the development of general linguistics and its relationship with Arabic linguistics is highlighted. Among those contained in this volume 1, a description of the elements related to grammar (grammar), such as; vocabulary (associated with lexicography), phrase/sentence formation (associated with phrase/sentence elements, semantic elements, transformation elements) and phonological elements (letter sounds/sounds). In addition, the author also explains the methods of systematic generation of semantic etymology as introduced by Naom Chomsky and John Lionse by showing some related diagrams. In this volume as well, the author highlights some issues related to the method of phrase/sentence formation such as the method of basic sentence formation (introduced by the author as Al-Binyah Al-Asasiyyah) and the method of sentence formation in depth (introduced by the author as Al-Binyah Al- Dakhiliyyah to systematic semantic etymology). While in volume 2, the author talks more about the meaning of phrases/sentences in one word and in context/simantics. In general, this book explains extensively and in depth about modern linguistic issues, especially topics related to the formation of sentences/phrases in detail.

5. The book "Al-*Alsuniyyah al-Tawlidiyyah wa al-Tahwiliyyah wa Qawa'id al-Lughah al-'Arabiyyah (Al-Nazariyyah Al-Alsuniyyah)*" by Dr. Mishal Zakaria (1986), published by the University Research, Publication and Distribution Center, Beirut.

The book describes in focus and detail the theoretical methods of Generation and Transformation Grammar Methodology related to systematic semantic etymology, by touching on the life history of methodology founders, Naom Chomsky and de sosor as well as his essays books as an introduction. The author also highlights some important topics and terms and terms related to linguistics in general, and related to methodology in particular such as; Al-Kifayah al-Lughawiyyah (Language Ability), Al-Ada' al-Kalamiyy (Speech Execution), Numuww al-Tifl al-Lughawiyy (Children's Language Development), Al-Qawa'id al-Lughawiyyah (Grammar Method Language), Al-Manhajiyyah Al-*Alsuniyyah* (Linguistic Methodology), Al-Anmuzaj Al-Lughawiyy (Sample/Language Form). In addition, the author focuses the description on the methods of Grammar Methodology of Generation and Transformation and systematic semantic etymology, starting with three related elements, namely; sound elements (phonology), meaning elements (semantics), sentence structure elements (syntactics) by presenting a flow chart to explain the form of the methods of Generation and Transformation Grammar Methodology. In addition to the flow chart, the most important thing emphasized by the author is the explanation of the relationship between Al-Binyah al-Sathiyyah (External Structure Verse Construction) and Al-Binyah al-'Amiqah (Internal Structure Verse Construction). This book is very detailed in explaining the Grammatical Methodology of Generation and Transformation theoretically and systematically semantic etymology in application. Whereas, from the point of view of methodological application it is not stated by the author in this book, as he presents it in one of his other books, namely; "Al-*Alsuniyyah al-Tawlidiyyah wa Al-Tahwiliyyah wa qawa'id al-Lughah al-'Arabiyyah (Al-Umlah al-Basitah)*" (1986).

6. The book "Nazariyyah Chomsky al-Lughawiyyah" by John Lions, translated by Dr. Hilmi Khalil (1985), published by Dar al-Ma'rifah al-Jami'iyyah al-Iskandariyyah, Egypt.

The book was originally written in English, and has been translated into Arabic. The translator has presented Chomsky's life history and introduced the book's original author, John Lions, in addition to briefly describing what John Lions wrote in relation to the systematic analysis of semantic etymology. As stated by the translator, the book is divided into ten chapters/clauses, one cover and three appendices. In chapter/clause 1, the author reveals the philosophical and scholarly principles that influenced the formation of Chomsky's linguistic theory of the systematic methodology of semantic etymology, in addition to its relevance to linguistics itself and its field. Next, the author presents the definition of modern linguistics and its comparison with traditional linguistic studies, in addition to describing the scope of Chomsky's views on the characteristics of human language. In the next clause, the author gives a description of the Bloomfard school which was the starting point of Chomsky's study under the leadership of one of the scholars of the school, Zellig Harris. In addition, the author also states how Chomsky began to shift from supporting Bloomfard's way of thinking to opposing it vehemently, even

promoting that society at that time abandoned the main principles of the school related to language/linguistics. Next, the author explains three important elements in Chomsky's theory, namely; Finite State Grammar Method/Methodology, Phrase Structure Grammar Method/Methodology and Transformative Grammar Method/Methodology itself which are applied directly in the systematic methodology of semantic etymology. The author emphasizes his description of the Method/Methodology of Transformative Grammar which is also accompanied by a systematic semantic etymology of the application of this method/methodology in English sentences. In addition, the author also touches on several other things such as; recent developments involving Chomsky's linguistic theory, the principles of psychology in the Grammar of Transformation and the systematic etymology of semantic from a philosophical point of view in such grammar. At the end of the book, the author again presents the essential terminological features of human language and compares them with the features of animal language, in addition to relating them to Chomsky's linguistic theory. What is interesting about this book, the author has attached a list of books written by Chomsky and other reference sources related to the theory of Grammar Transformation joint related systematically semantic etymology, either from among its supporters or opponents.

7. The book "Al-Nahw al-'Arabiyy wa al-Dars al-Hadith: Bahth fi al-Manhaj" by Dr. Abduh Al-Rajhi (1979), published by Dar al-Nahdah al-'Arabiyyah li al-Tiba'ah wa al-Nashr wa al-Tawzi', Beirut.

This book presents about Arabic grammar (grammar) and its relation to the development of modern linguistics, in particular about the systematic semantic etymology of grammatical (grammar) transformation (Al-Tahwiliyy). What is emphasized in this book, is the systematic analysis of the grammar (grammar) of transformation (Al-Tahwiliyy) related to the systematic etymology of semantic etymology founded by Naom Chomsky. This stage of grammatical analysis is divided into three, namely; Finite State Grammar Method, Phrase Structure Grammar Method and Transformation Method which are systematically related to the semantic etymology itself. In addition, the author also compares between Arabic grammar (grammar) with Chomsky's modern grammar, and concludes that Chomsky's modern grammar is systematic. At the end of the book, the author states conclusions regarding systematic Arabic grammar of existing semantic etymology are complete but not analyzed, and suggests not to rule out the emergence of modern grammatical methods (e.g., Chomsky transformation method) for process improvement.

The Holy Qur'an was a basic starting point from three groups of studies, which are linguistic studies, rhetorical studies, and Qur'anic studies. Signs of acoustic studies have emerged from among all these three studies throughout the ages. The first to turn to the connection of the phonetic lesson with linguistic, morphological and grammatical studies was Al-Khalil bin Ahmed Al-Farahidi (175 AH), who built the arrangement of sounds on a logical basis, based on knowledge of the characteristics and qualities of letters, and a thousand Al-Ain dictionary that begins with the ring letters. Then Ibn Jana (392 AH), in the stage of construction and foundation, came to the stage of rooting, discussing the issues of sound in his book, (The Secret of the Syntax of Expression), and (Al-Khassas) in accurate research on the source of the sound and how it occurs. Vocal sounds and silent sounds.

The scholars of intonation started from the audio lesson to root the science of intonation. They put dozens of terms related to the precise vocal performance of the Noble Qur'an, in what phonologists today call phonology. Among them are the characteristics of the letters: such as whispering, loudness, intensity, slackness, mediation, arrogance and declension, and other things such as elongation and softness, deviation and repetition, spread, elongation, slurring, concealment, and then the provisions of endowment and silence and others (Majid al-Najjar, 2006).

In his study, Majid al-Najjar (2006) pointed out the results that the phonetic aspect is an essential and important element in the Noble Qur'an, which cannot be dispensed with in any way in achieving the desired meaning and encompassing it. He said that in the Holy Qur'an there are many phonetic phenomena, all of which have special connotations, including movement, rhythm, tide, letter, and syllable. And he showed in it the rhythmic proportionality between the three Qur'anic words, and the equality between their syllables, which is an eloquent indication that they are equal in deafness, muteness and blindness, which together lead to their equal loss of the most important senses through which the process of awareness and awareness takes place. This indicates in his syllabic, semantic and rhythmic analysis in the verse the Almighty's saying: "Deaf, dumb, blind." He also clarified the different degrees of influence in the rulings of the static, which are manifestation, immersion, inversion, and concealment.

Majid Al-Najjar (2006) also indicated that the occurrence of unified rhythmic phenomena and the repetition in the verse, the Almighty's saying: "Deaf, dumb, blind." Tanween came three times. In Noun "Sum" it is inverted, and in Noun "Dum" it is manifesting, and in Noun "Ammi" it is concealment, due to the difference in the letters that followed each of them in the expression and the adjective.

Ghanem Qaddouri al-Hamad (2015) pointed out the importance of phonetics in studying the science of intonation in dealing with the study of the production of linguistic sounds, exits and adjectives, then phonemes (movements and vowels), and the other of the structural phonetic phenomena in the consonant nun rulings and the consonant meem rulings. It appears in his studies on the exits of sounds, the characteristics of letters, and the phonemic phenomena arising from the composition, which is the phenomenon of concealment in the consonant n and the consonant meem.

The studies showed from the foregoing, that researchers have been interested in the field of sounds about the exits of letters and their qualities, emerging phonetic phenomena and phonetic significance in the structure of the Arabic word. There is a lack of studies related to the provisions of intonation. And if they had interpreted the rules of intonation, it would have been very little in its interpretation. In addition, in the field of Arabic sound clips, its explanations were not many except for a few in touching some of the topics.

Many studies have appeared during phonology in the field of semantic, functional, synthetic, and phonological in various sciences in general and the Holy Qur'an in particular. The efforts of ancient and modern scholars have made a number of modern phonetics in benefiting from the impact of this modern science on the science of intonation. It showed the results of studies on the ability of researchers to analyses and employ these sciences in different fields. As well as solutions to problems and linguistic structure problems that occurred in the audio clips.

METHODOLOGY

This research is focusing on designing a multi-relational LPSA model in extracting Qur'anic concept based on combination of Arabic Lexicology-Phonology-Semantic and six multiple relations between words, which are synonym, antonym, hypernym, hyponym, homonym, and meronym. The researcher will use text analysis method as follows:

For more specifically, this approach will be conducted in the following techniques as follows:

1st Phase: Phonological Root Analysis.

2nd Phase: To Propose a New Model for Extracting Qur'anic Concept Based on previous 1st phase result, the researcher will follow the next steps: Create and propose a model using six multiple relations between words in Latent Lexicology-Phonology- Semantic.

3rd Phase: Investigating Lexicology-Phonology-Semantic Relationships between Qur'anic Words. The proposed model will be validated by testing a concept of "Sight" in Quran as a sample. (An expected analysis is shown as below).

4th Phase: Validating the proposed model. The result then will be evaluated by two groups of experts.

1st Phase: Phonological Root Analysis

This phase will be conducted in following steps:

1. The researcher will identify digital document file of Qur'anic text. The text's authentication will be verified by expert.
2. The digital document will be analyzed using corpus analysis using Wordsmith version 2.1.
3. Each word in text will be categorized into two families of verb and noun, excluding particles.
4. The researcher will identify root of each word in these two categories, then categorize the words belong to similar root in another sub-family
5. To enhance the confidence of investigation, the result then will be triangulated with three Arabic referred dictionaries:
 - i. Lisan al-'Arab by Ibn Manzur.
 - ii. Mu'jam al Wasit by Majma' Luhghat al-'Arabiyyah in Cairo.
 - iii. Al-Mu'jam al-Asasi by al-Munazzamah al-'Arabiyyah li al-Tarbiyyah wa Thaqafah wa al-'Ulum.

2nd Phase: To Propose A New Model For Composition Qura'nic Illustration Based on previous 1st phase result, the researcher will follow the next steps:

1. Create and propose a model using six hyperlinked relations between words in Latency Semantic Analysis as follows:
 - a. Synonym: A word or phrase that means exactly or nearly the same as another word or phrase in the same language.
 - b. Antonym: A word opposite in meaning to another.
 - c. Hypernym: a word with a broad meaning constituting a category into which words with more specific meanings fall.
 - d. Hyponym: a word of more specific meaning than a general or super ordinate term applicable to it.
 - e. Holonym: A illustration of which this illustration forms a part.
 - f. Meronym: A term that denotes part of something.
2. Related connections of word to illustration meaning then will be identified.
3. Linking the related connections to key illustration in tree-form drawing.
4. Describing the design of composition Qura'nic illustration based on ontological approach in Latency Semantic Analysis.

3rd Phase: Investigating Semantic Relationships between Qura'nic Words
The proposed model will be validated by testing a illustration of "Sight" in Quran as a sample. (an expected analysis is shown as below).

4th Phase: Validating the proposed model

The result then will be evaluated by two groups of experts:

1. An Arabic linguist who will examine Phonological Root Analysis and the merging process with hyperlinked-relational Latency semantic analysis, and
2. Qura'nic experts who examine holistically the illustration of Sight in al-Quran, according to Islamic perspective the evaluation will be conducted in focus group interview. Any suggestion or feedbacks will be taken into consideration to improve the model.

A sample of proposed model in using LEXICOL-SEM to composition Qura'nic illustration (LEXICOLSEM)

- Alm for Arabic Linguistics Learning Skills;
- Ass for Arabic Linguistics Speaking Skills;
- Ars for Arabic Linguistics Reading Skills;
- Aws for Arabic Linguistics Writing Skills.

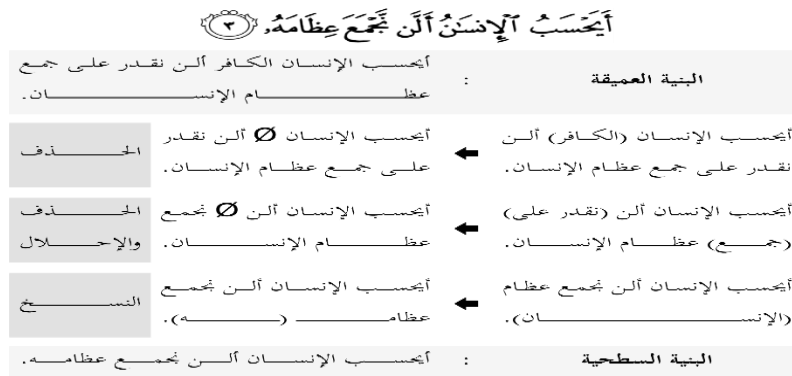


Figure 5: A sample of proposed model in using MMRLEXICOLPHONOSEM to extract Qur'anic concept

FINDING AND NEW RESULT NOVELTY

Policies for government agencies to help them curb and solve the educational system in teaching and learning Arabic linguistics training and practices in tricking consumers into thinking that product by apply a new innovative method for whole level of students and society. This is an invention; thus, no comparable product existed in the market. Impact on human being and socio economic. The “(MMRLEXICOLPHONOSEM)” have improved knowledge and linguistic skills in the production of higher quality of human capital. Furthermore, the researcher was sales from text and reference, more formula books, CDs and Courses, training, workshop generate additional income for.

Harmonized society and community where Muslim and non-Muslim can seat together enjoying their communication with multiple lingual; that Muslim be it Malaysian or international could be unity of the nation local or foreign without any doubt or miscommunication.

Academically closing the gap on communication between society and community related research, providing the aspect of language, culture, and society perspective.

ACKNOWLEDGMENTS

This paper is part of a research project supported by the Malaysian Ministry of Higher Education Fundamental Research Grant Nos. (FRGS/1/2020/SSI0/USIM/02/2 USIM/FRGS/FPBU/KPT/51220). We have development a new novelty model “MMRLEXICOLPHONOSEM” Analysis Model for Extracting Qur'anic Concept.

REFERENCES

- A. E. Mousa, R. Schlüter & H. Ney. 2012. Investigations on the use of morpheme level features in Language Models for Arabic LVCSR. *IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, pp. 5021-5024.
- Al-Hamad, G. Q. 2015. *The importance of phonetics in the study of intonation. Second Edition.* (I. o. Library, Ed.) Riyadh: Interpretation Center for Quranic Studies.

- Ali, A. 2009. *Contemporary Linguistics for Students in Malaysian Universities. First Edition*. Malaysia: The Malaysian Scientific Publication Council.
- Al-Saran, M. 1962. *Linguistics an Introduction to the Arabic Reader*. Egypt: House of Knowledge.
- Anis, I. 1975. *Linguistic Sounds. Fifth Edition*. Egypt: Anglo-Egyptian Library.
- Azman Ta'a, Abidin, S.Z., Abdullah, M.S., Ali, B. B. M., & Ahmad, M. 2013. In: 4th International Conference on Computing and Informatics (ICOI 2013), 28 -30 August 2013, Kuching, Sarawak, Malaysia, hal. 383-389.
- Bahnasawy, H. E. 2005. *Phonetic studies of Arab scholars and the modern phonemic lesson*. Cairo: Zahraa El Sharq.
- Bashar, K. M. 1971. *General Linguistics. Part Two: Voices. Second Edition*. Egypt: House of Knowledge.
- Bishr, K. M. 2000. *Phonology*. Cairo: strange house.
- Chang, K., & Meek, W.Y.C. 2013. Multi-Relational Latent Semantic Analysis.
- Cosma, G. 2008. An Approach to source-code plagiarism detection investigation using latent semantic analysis. *IEEE Transaction on Computers*. Retrieved from <http://eprints.dcs.warwick.ac.uk/401/1/cs-440.pdf>
- Desouki, S., & G. 2011. An Application Oriented Arabic Phonological Analyzer. *Damascus University Journal* 27(1): 7-19.
- Hikmat Ullah Khan, Muhammad Saqlain, S., Shoaib, M, & Sher, M. 2013. Ontology Based Semantic Search in Holy Quran. *International Journal of Future Computer and Communication* 2(6): 570-575.
- Ibn Jinni, O. 1956. *Al Khasa'is* . Egypt: Dar Al-Kutub Al.
- Inaam Al-Haq Ghazi & Nasser Mahmoud. 2017. "The sound syllable and its importance in Arabic speech". Arabic Section Magazine. In *Arabic Section Magazine Twenty-Fourth issue*. Lahore, Pakistan: Punjab University.
- Maha al-Yahya & Hend al-Khalifa. t.th. An Ontological Model for Representing Semantic Lexicons: An Application on Time Nouns in The Holy Quran. *Arabian Journal for Science and Engineering* 35(2): 21-35.
- Mariobay, Translation: Ahmed Mukhtar Omar. 1973. *Foundations of Linguistics*. Libya: Tripoli University Press.
- Omar, A.M. 2004. *Study of linguistic sound*. Cairo: The world of books.
- Ozcan, R., & Aslandogan, Y. A. 2004. Concept Based Information Access Using Ontologies and Latent Semantic Analysis. 1-16.
- Rahman, A.A. 2003-2007. *Linguistics Studies*. Bandar Nilai Baru, Negeri Sembilan: Publishing Section USIM.
- Rahman, A.A. 2007-2017. *A'liyat Tahlil al-Nas al-Qur'ani al-Lughawiyy: Dirasah Lughawiyyah Dalaliyyah (Formula Book)*. Bandar Baru Nilai, Negeri Sembilan: Publishing Section USIM.
- Rahman, A.A. 2018-2019. *Modern Linguistics Studies* . Bandar Baru Nilai, Negeri Sembilan: Publishing Section USIM.
- Shaheen, A.S. 1980. *The phonetic approach to the Arabic structure*. Beirut: Al-Resalah Foundation.

- Steinberger, J. & Jezek, K. 2004. Using Latent Semantic Analysis in Text Summarization. *Proceedings of ISIM 2004*, pp. 93-100.
- Zhao, L. & Callan, J. 2010. Term necessity prediction. *Proceedings of the 19th ACM International Conference on Information and Knowledge Management - CIKM*, pp. 259.