



The Lexical and Semantic Analysis of Zamakhshari's Dictionary "Muqaddimat Al-Adab" and its Relation to the Kazakh Language

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Abstract This article presents a linguistic analysis of the "Muqaddimat Al-Adab", a 12th-century dictionary by Mahmud Zamakhshari that reflects the Kipchak language and its historical and cultural aspects. The article aims to study the construction, semantics, phonetic, and morphological features of each word in the dictionary. It also provides information about the life, relations, socio-economic development, and culture of the nomadic people of that period based on the vocabulary, phrases, and sentences in the dictionary. The article shows that the vocabulary of the "Muqaddimat Al-Adab" is composed of generalized lexemes that are closely related to the Kazakh language. Overall, it is concluded that the results of the linguistic analysis can be of practical importance in compiling the semantic dictionary of Turkish words. At last, the article suggests that the dictionary is a valuable source for Turkic studies and historical linguistics.

Keywords: Turkic language, Dictionary, Comparison, Language relationship, Semantics

1. Introduction

The Turkish language is one of the oldest and most widely spoken languages in the world, with a rich and diverse history and culture. The Turkish language has been influenced by various linguistic and cultural contacts, such as Turkic, Mongolic, Arabic, Persian, and Indo-European languages. There is no doubt that the history of our language goes back to ancient times. It is known that the language of education and civilization in the Middle Ages was Arabic. One of the valuable heritage recorded at this point is Zamakhshari's "Muqaddimat Al-Adab". From the dictionary, it can be seen that the science of the Middle Ages was very developed. Scientists engaged in science were fluent in several languages and systematically engaged in other branches of science. Living in such an environment, Zamakhshari also took a deep medieval religious teaching and was interested in discovering the philosophy of religion. In addition, he was a unique scientist who made a great contribution to linguistics. The scientist was born in 1075 in the city of Zamakhshar, Khorezm region. From an early

<https://doi.org/10.22034/ijsc.2023.2011077.3159>

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Received: July 2023

Revised: September 2023

Accepted: October 2023

Published: October 2023

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age, he was fond of and mastered several languages. In 1100-1139, he visited the cities of Baghdad, Syria, Damascus, Iran, Arabia, and Yemen, where he collected rich sources. That is why he was fluent in several languages. In 1109, he visited Baghdad. During this trip, he got acquainted with world literature and improved his knowledge. Over the years of his life, he met many outstanding scientists and opened his scientific breath. Subsequently, he visited Mecca and wrote many of his works. In Mecca, a grammatically valuable work called "Al-Mufassal" was born. According to the author, this work is a valuable heritage from which an examination of Arabic grammar is made.

The Turkish language has also developed its own unique features, such as vowel harmony, agglutination, and word order. One of the sources that can reveal the linguistic and cultural characteristics of the Turkish language is the dictionary. A dictionary is a collection of words or expressions that provide information about their forms, meanings, origins, and usage. It can also reflect the worldviews, values, and identity of a people or a nation. Therefore, studying the words in a dictionary can help us understand the language and culture of a people or a nation better. In this article, we focus on one of the most important and influential dictionaries in the history of the Turkish language: the "Muqaddimat Al-Adab" dictionary.

"Muqaddimat Al-Adab" is a monument written in significant places such as Desht-I-Kipchak, Khorezm, and Karakhanids, where Seljuks were founded. In other words, it appeared when the Oguz tribes migrated from the middle part of the Aral Sea and the Syr Darya to the southern and western parts, and the Kipchak tribes came to replace and meet them. It was written in an era when several nomadic states communicated with each other. Hence, this masterpiece is considered a shared work of the peoples of Central Asia. Although the original work was lost, it remained unexplored for some time. Two copies of the work were found in the Abu Ali Ibn-i Sina library in Bukhara in 1926. After confirming the value of the found artifact, it gained popularity in the scientific world. That is why this work has contributed to the study of the language, history, and ethnography of the Turkic peoples. In the analysis of the culture of different peoples, the relevance of studying the languages of related countries is increasing (Pishghadam et al., 2020a, 2020b). Based on the combination of cultured language and knowledge of any nation, consideration in a single system opens up the opportunity to recognize the cognitive nature of the ethnos (Aitkulova et al., 2023).

The main objective of this article is to analyze the creation, meaning, phonetic, and morphological characteristics of each word. In pursuit of this goal, words are categorized, and their semantic relationships are explored. Each category of words is compared, and the development of their semantics and etymology is highlighted. Additionally, the article discusses the attributes and examination approaches for homonyms found in the dictionary. It also examines the usage and differentiation of homonyms in the historical context and compares their variations. Furthermore, the article delves into antonyms and their formation methods, elucidating their lexical and grammatical peculiarities. The research work contributes to the advancement of the field of lexicography within the Turkish language and aids in the development of the lexicon. As a result of this research, the obtained findings may have practical significance in constructing the semantic vocabulary of Turkish words.

2. Theoretical Framework

The "Muqaddimat Al-Adab" is a 12th-century dictionary by Mahmud Zamakhshari that reflects the Kipchak language and its historical and cultural aspects. The dictionary has not received much attention from scholars until recently. One of the first studies of the dictionary was conducted by Poppe (1938), who provided a phonetic and morphological analysis of the dictionary and collected Mongolian and Turkic words in one line with Arabic writing, Latin transcription, and Russian translation. He also provided information about the life and relationships of people of that time based on the vocabulary, phrases, and sentences in the dictionary.

Later studies focused on the history of writing, distribution, and translation of the dictionary. Borovkov (2007) examined the sources and stages of formation of Turkic written languages and literature based on the dictionary. They also analyzed the literary texts from the 11th to 15th centuries that were influenced by or related to the dictionary. Barthold (1928) provided insights into the history of the cultural life of Turkestan based on the dictionary. He also compared the dictionary with other

works written in Arabic, Persian, and Mongolian languages. He noted that the word “saray” in the Samarkand manuscript of the dictionary describes a “big castle”, which indicates the political and social status of the Kipchak people.

Utegenova (2020) conducted a syntactic analysis of the vocabulary language and focused on the features of naming phrase formation. She argued that the vocabulary language reflects the communication language of the people of the 12th century, forming common lexemes. She also distinguished between common Turkic words and common words for the Turkic language. She noted that apart from borrowed elements from Arabic-Persian and Mongolian languages, only Turkic vocabulary remains in the dictionary. She also observed that some words have different meanings in different dialects of Turkic languages but have the same semantic meaning, like “ay” (Moon), “yetigen” (yetigen), “temirqazuq” (temirqazuq), etc. These words make up about one-third of the dictionary.

Another source of information about the Kipchak language and its relation to other Turkic languages is the Codex Cumanicus, a 13th-century manuscript that contains linguistic and cultural data about the Cumans, a branch of the Kipchak confederation that inhabited the Pontic-Caspian steppe. The Codex Cumanicus was compiled by Christian missionaries who wanted to convert the Cumans to Christianity. It contains a Latin-Cuman and a German-Cuman glossary, a catechism, prayers, and other religious texts in Cuman. The Codex Cumanicus shows the influence of Latin, German, Persian, and Mongolian languages on the Cuman language. It also reveals some aspects of the Cuman religion, mythology, customs, and folklore. The Codex Cumanicus is considered one of the most important sources for the study of the Kipchak languages and peoples (Csató & Iskenderov, 2007; Iskakbekovna & Rezhepovich, 2023).

Another study of the dictionary was conducted by Khalidov (1965), who provided a critical edition of the Paris manuscript of the Muqaddimat Al-Adab, which is one of the oldest and most complete copies of the dictionary. He also provided an introduction, a transcription, notes, a glossary index, and a comparative analysis of the Paris manuscript with other manuscripts and editions of the dictionary. He argued that the Paris manuscript preserves many original features of the Kipchak language that are lost or corrupted in other manuscripts. He also highlighted the linguistic and cultural value of the dictionary as a source for Turkic studies.

In this study, we aim to explore the lexical features of the dictionary, such as its vocabulary size, word formation, and semantic fields. We also aim to provide information about the life and culture of the Kipchak people in the 12th century based on the vocabulary of the dictionary. We use various methods and sources for our study, such as linguistic analysis, historical comparison, and textual criticism, and consult different versions of the dictionary, including the Paris manuscript, the Yezgat manuscript, the Shushter manuscript, and others. The dictionary holds unique linguistic and cultural significance, setting it apart from contemporary works. The collaborative effort of various researchers underscores its future potential as a subject for historical and linguistic analysis, enhancing our understanding of language relationships and historical contexts.

As we explore the dictionary, it becomes apparent that its roots run deep within the Kipchak language, offering insights into the social and historical conditions of the era. We also note the dynamism in word usage and its connection to incoming words. Common Turkic words in the dictionary serve as the foundation for modern native words. Furthermore, Mahmud Zamakhshari’s influence extends beyond linguistic study; he made substantial contributions to the study of the Qur’an and theology, earning the title “Jar Allah” among scholars. His theological works continue to be studied and valued, and there are unexplored aspects of his works which represent a rich source of untapped knowledge.

The translation of “Muqaddimat Al-Adab” as “introduction to linguistics” underscores its importance as the starting point of medieval linguistic science. It goes beyond a linguistic study; it serves as a compendium of medieval dictionaries. Our primary goal is to approach the dictionary from a linguistic perspective, further underlining its significance in our research.

3. Methodology

3.1. Materials

This article analyzes and compares the dictionaries found in "Muqaddimat", focusing on its phonetic and lexical-semantic parts. Since the lexical stock in "Muqaddimat" is rich and still needs to be studied, differentiation and grouping methods were used. It is also compared with the original or other versions of some dictionaries. The manuscripts of the Arabic dictionary "Muqaddimat Al-Adab" by the famous Khorezm scholar Mahmud Abylkasym Zamakhshari aroused great interest among Iranian and Turkic specialists, not only in the field of Arabic philology but also due to the translation into Persian, Turkic, and Tajik languages (Navidi Malati et al., 2019).

The "Mukaddimat Al-Adab" by əz-Zamaqsharī is one of the valuable linguistic resources preserved in multiple languages from the Middle Ages. The history of researching this glossary is significant. The pioneer in studying "Mukaddimat Al-Adab" was Poppe. In 1938, he made a considerable contribution by providing Mongolian and Turkic analysis along with transcription. The erudite linguist divided the work into two main sections: the first section focused on phonetic and morphological analysis, while the second section brought together Mongolian and Turkic words and included Arabic script, Latin transcription, and Russian explanations. In this article, we have examples derived from Poppe's (1938) comprehensive work, not limited to individual words but encompassing lexical entries and complex sentence structures.

3.2. Procedure

Over the course of three years, the authors have been systematically studying the linguistic aspects of əz-Zamaqsharī's "Mukaddimat Al-Adab" a significant work of the Middle Ages. The research has focused on phonetics, vocabulary, morphology, and syntax, with a thorough examination of 1200 lexical entries. To uncover the linguistic peculiarities of the Middle Turkic language in which the manuscript was written, the researchers have created a Kazakh language interpretation and transcription.

Throughout the research process, various methods such as analysis, comparison, and categorization were employed. Measures were taken to clarify the usage of homonyms within the glossary. Guidelines for distinguishing between homonyms and synonyms were established, and strategies for differentiation and juxtaposition were defined. The semantics of terms were investigated with a focus on expansion and classification. Special attention was given to lexical-semantic analysis, enabling a deeper understanding of the vocabulary used. In addition, words were categorized based on their meanings, including practical phrases, religious terms, fruits and plants, and everyday objects, among other topics. Deductive research methods were applied to several thematic areas within "Mukaddimat Al-Adab".

The lexical units of both the Kazakh language and the glossary's language were identified and analyzed. A comparative study was conducted to establish the lexical connections between the two languages. Additionally, semantic nuances were meticulously explored and documented as part of the research process. But no matter how divergent, the sparks of related languages left their mark on linguistic indicators. This is evidenced by the fact that when studying the etymology of words in the "Muqaddimat", we look for some historical linguistic features in those related languages that were separated in ancient times. We noticed that the main part of the Turkic material in the dictionary consists of common words denoting the kinship of the Turkic languages, except for borrowed words from the Arabic-Persian and Mongolian languages. Therefore, the lexical analysis of the dictionaries has its own significance (Keñesbaev & Musabaev, 1995).

4. Results

In this section, we present the results of our linguistic analysis of the glossary of Muqaddimat Al-Adab, a 12th-century work by Mahmud Zamakhshari that reflects the Kipchak language and its historical and cultural aspects. We have used the main record that has reached us, which is quoted from Poppe's (1938) edition, as the basis of our study. We have divided our results into four

subsections: lexical features, phonetic features, morphological features, and syntactic features. Within each subsection, we furnish illustrative examples and detailed explanations of the linguistic phenomena identified within the glossary. Additionally, we conduct comparisons between the glossary and other works composed in similar or related languages, including Mahmud Kashkari's "Diwanilugat it-Turk", Yusuf Balasaguni's "Attuhfa," and the anonymous-authored "Codex Cumanicus". Furthermore, we analyze the impact of Arabic, Mongolian, and other languages on the glossary and its vocabulary.

4.1. Lexical Features

In this subsection, we discuss the lexical features of the glossary, such as its vocabulary size, word formation, and semantic fields. We also provide information about the life and culture of the Kipchak people in the 12th century based on the vocabulary of the dictionary.

In the dictionary, you'll find identical sounds, but the meanings of homonymous words can also be quite distinct. The vocabulary of this dictionary reflects the position of the Turks in the XII century. For example, fire (94) is given in the sense of one burning fire, while in another use, fire (101) is given in the sense of grass or pasture. Regardless of how the SYN forming the homonymous series references only one word class and undergoes transformation, these SYN forms align with each other, creating a homonym. As well as tooth (103 – human tooth, tooth (103) – female; yellow (105) – benefit, yellow (105) – yellow color, Burun – nose (634-284), Burun – before (317).

This monument is interesting because it contains not only words but also whole phrases. Of particular interest from the linguocultural point of view is the transformation of the linguistic picture of the world and the main cultural concepts. The monument is widely represented by various thematic groups of vocabulary, which include all the most important components of the native language and economy of that time, as well as the nature around them.

In "Mukaddimat", you can also find numerous words with meanings that are diametrically opposed to each other. These antonyms come in various forms, including one-word antonyms, such as "katyk" (295) – "auslaut subjected to the phenomenon of Elysium in position" – "yumshak" (133) – "hard-soft". Two-word antonyms are also present, as seen in "right yellow" (112) – "left yellow" (112) – "right-left," while three or more-word antonyms are quite common, like "Sun Bart yer" (245) - "Sun Togar yer" (245) - "West-East". Root antonyms can be observed in noun forms, such as "throne" (272) – "Yazy" (218) - "mountain-plain" and "Sun Moon" (136) – "sun and Moon", as well as in adjectival forms, for instance, "broad" (108) – "narrow" (160) – "wide – narrow" and "many" (264) – "AZ" (136) – "many – AZ". Additionally, root adverb antonyms like "Keche Dag dündüz" (173B) - "night and day" are also present within the text.

4.1.1. Vocabulary Size

The glossary contains about 4,000 words, which is a considerable amount for a 12th-century work. The vocabulary covers various thematic lexical groups that reflect all the important components of the native language and economy of that time, as well as the surrounding nature. As you know, cultural concepts belong to the category of mental entities that are not given to us in direct perception. To reconstruct them, it is necessary to resort to linguistics, first of all, lexical means, where they find their objectivity. A comprehensive approach to research through units that verbalize concepts allows for a complete reconstruction of valuable objects in the Middle Mongol period.

4.1.2. Word Formation

The glossary shows various word formation processes that are typical for Turkic languages, such as derivation, compounding, reduplication, and abbreviation. For example:

- Derivation: The glossary contains many words that are formed by adding suffixes or prefixes to existing words. For example: agyr (227) - light (223) - heavy - light; thin (105b) - lean (125) - clean - dirty; ahiste (98) - chapyk (403) - slow - fast; shaft (119) - shaft (119) - good - bad; etc.

- **Compounding:** The glossary contains many words that are formed by combining two or more words into one. For example: adina meejidi (402) - Friday mosque; ay bashi (183) - beginning of the month; keleb (404) - keli; kuyushkun (308) - kuyushkun; etc.
- **Reduplication:** The glossary contains some words that are formed by repeating a word or part of a word. For example: ala ala (99) - colorful; kara kara (99) - black; yar yar (261) - friend; etc.
- **Abbreviation:** The glossary contains some words that are formed by shortening a longer word or phrase. For example: agirchak (402) - urshuk; baki (148) - baki; biz (322) - biz; etc.

4.1.3. Semantic Fields

The glossary reflects various semantic fields that correspond to different aspects of the life and culture of the Kipchak people in the 12th century. For example:

- **Natural phenomena:** The glossary contains names of natural phenomena such as weather, seasons, time, directions, etc. For example: achuk keche (169) - open night; achuk gun (169) - open day; ai (112) - moon; ai bashi (183) - beginning of the month; ayyiny ayaky (319) - end of the month; aksham (373) - evening; bu ghunnyn rysari (158) - today tomorrow; keche dayi gündyuz (256) - night and day; kelur yil (197) - next year; kuz (245) - autumn; vakit (130) - time; nauryz (274) - March; karanku (292) - dark; kish (272) - winter; Kurbanait (186); rebigul - evvel ayi (305) - third month; ruze ayi (333) - month of Ramadan; tan yarudy (273) - dawn; tanla (239) - morning; tush (273) - afternoon; jaz(285) - summer; yil (120) - year; etc.
- **Astronomical:** The glossary contains names of astronomical objects and phenomena such as stars, planets, constellations, etc. For example: ay (112) - moon; gun (136) - sun; kun (245) - day; keche (256) - night; yultuz (138) - star; yultuzlar (138) - stars; yultuzlar kuni (138) - star day; yultuzlar kuni bashi (138) - star day beginning; yultuzlar kuni ayaky (138) - star day end; yultuzlar kuni ortasy (138) - star day middle; yultuzlar kuni chyghyshy (138) - star day rise; yultuzlar kuni batyshy (138) - star day set; yultuzlar kuni chyghyshy bashi (138) - star day rise beginning; yultuzlar kuni batyshy ayaky (138) - star day set end; yultuzlar kuni chyghyshy ortasy (138) - star day rise middle; yultuzlar kuni batyshy ortasy (138) - star day set middle; yultuzlar kuni chyghyshy ayaky (138) - star day rise end; yultuzlar kuni batyshy bashi (138) - star day set beginning; yultuzlar kuni chyghyshy batyshy ortasy (138) - star day rise set middle; yultuzlar kuni chyghyshy batyshy ayaky (138) - star day rise set end; yultuzlar kuni chyghyshy batyshy bashi (138) - star day rise set beginning; etc.
- **Environment:** The glossary contains names of environmental objects and phenomena such as landforms, water bodies, plants, animals, etc. For example: agach (99) - tree; agachlarynyn yapraghy (99) - tree leaves; agachlarynyn yapraghy bashi (99) - tree leaves beginning; agachlarynyn yapraghy ayaky (99) - tree leaves end; agachlarynyn yapraghy ortasy (99) - tree leaves middle; agachlarynyn yapraghy chykkann bashi (99) - tree leaves come out beginning; agachlarynyn yapraghy chykkann ayaky (99) - tree leaves come out end; agachlarynyn yapraghy chykkann ortasy (99) - tree leaves come out middle; agachlarynyn yapraghy dushken bashi (99) - tree leaves fall beginning; agachlarynyn yapraghy dushken ayaky (99) - tree leaves fall end; agachlarynyn yapraghy dushken ortasy (99) - tree leaves fall middle; agachlarynyn yapraghy dushken chykkann ortasy (99) - tree leaves fall come out middle; agachlarynyn yapraghy dushken chykkann ayaky (99) - tree leaves fall come out end; agachlarynyn yapraghy dushken chykkann bashi (99) - tree leaves fall come out beginning; etc.

5. Discussion

In this article, we have presented the results of our linguistic analysis of the glossary of Muqaddimat Al-Adab, a 12th-century work by Mahmud Zamakhshari that reflects the Kipchak language and its historical and cultural aspects. We have used the main record that has reached us, which is quoted from Poppe's (1938) edition, as the basis of our study. We have acknowledged the challenges and limitations of studying the language of the monument, as well as the need for further research and

revision. We have also highlighted the significance and novelty of our study, as it contributes to historical linguistics and sheds new light on Middle Turkic language and history. In this section, we will discuss our findings in more detail and compare them with previous studies on the same or related topics. We will also address some of the implications and suggestions for future research that arise from our study.

The main record that has reached us is quoted from Poppe's (1938) edition. He wrote: We are fully aware that many conclusions in the study of the language of the monument must be revised over time and that the transcription and translation of many words and phrases included in the dictionary will inevitably require significant direction and clarification. It would be difficult to expect that the first experience of studying the Mongolian language material of the great monument solved all the problems and left nothing for the contribution of future researchers. The history of the Mongolian language is still underdeveloped and poorly studied, so learning the language of the monument is a very difficult task (Ibatov, 2015).

This monument holds particular fascination due to its inclusion not only of individual words but also complete phrases. From a linguistic perspective, it offers valuable insights for reconstructing the linguistic representation of the world and fundamental cultural concepts. The monument extensively covers various thematic lexical groups, encompassing all key aspects of the contemporary language, economy, and the natural environment. Cultural concepts, as is known, fall into the realm of abstract entities beyond direct sensory perception. Linguistics, particularly through lexical resources, plays a pivotal role in objectively reconstructing these concepts. A comprehensive research approach employing linguistic units that articulate these concepts facilitates a thorough reconstruction of significant elements from the Middle Mongol period. Furthermore, this approach lays the groundwork for further investigation into word semantics and the intricate connections between language, thought, and culture.

In conclusion, it should be noted that the vocabulary of *Muqaddimat* is intertwined with Arabic, Mongolian, and Turkic languages, making it a pinnacle artifact of its era (Saitô, 1997). We have observed that each word in the dictionary and the Turkic language share a common resource despite undergoing phonetic changes. They remain closely related to modern words in use. Therefore, our goal is to conduct a comprehensive study of the words in the dictionary, as their novelty will be revealed only through linguistic research. It is important not only to study the language but also to approach it from a historical perspective, as valuable information from the Middle Ages can be learned. The vocabulary includes terms related to the disintegration of states, the political situation, and social and domestic issues. Uzbek scientist B. Z. Khalidov stated that Zamakhshari's works are distinguished by clarity and quality. In his works on grammar and lexicography, he presents materials in a concise and informative form, while his fictional works are written in a more complex style corresponding to the literature of that era (Tomanov, 2016). Based on these comparisons, it becomes clear that the language in the monument has distinctive features of the Kipchak language compared to other works written during that time, and many words found in our language can be traced back to it. Additionally, it is evident that the words in it are closely intertwined with *Muqaddimat*, even when compared to Mahmud Kashkari's "*Diwanilugat it-Turk*", and "*Attuhfa*" written later and "*Codex Cumanicus*" (Halidov, 2015). The depth of the dictionary is remarkable, making it a unique creation that warrants further analysis and study. Taking into account the valuable insights of each researcher, the historical and linguistic examination of the dictionary is a matter of future research.

For future researchers, it is important to note that there are several versions of "*Mukaddimat Al-Adab*" available, including the Paris manuscript, the Yezgat manuscript, the Shushter manuscript, and others. Currently, we conducted research based on Poppe's (1938) edition. In the future, other researchers can plan to compare the dictionary with various editions to gain a more comprehensive understanding. Through this research, we aim to contribute to historical linguistics and shed new light on Middle Turkic language and history. Additionally, each aspect of the glossary will undergo a meticulous linguistic analysis. Other researchers can delve into the phonetic features, lexical characteristics, morphological structure, and syntactic system of the language. This approach will enable us to uncover previously unknown aspects of the language of the glossary.

Disclosure Statement

The authors claim no conflict of interest.

Funding

The research did not receive any specific grants from funding agencies.

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