

# Malay Science: A Study on the 17<sup>th</sup> Century Dictionary

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## Abstract

This paper discussed the 17<sup>th</sup> century Malay civilisation specifically in science. This century was the golden age of Malay as the influences of the Arab and Western regarding technology, science, and literature had given the positive impact on the development of Malay language, especially since they brought together the printing technology to documenting knowledge of the Malays at that time. Immigrants who came to the Malay world were not only carried out trading activities but also conducting research and documenting the language, place, culture, and specific knowledge that is owned by the community. Thomas Bowrey was the first Englishman to make a note on the Malay nation through the dictionary entitled 'English-Malayo Malayo-English' which published in 1701. This dictionary is one of the documents produced in the golden age of Malay which describes in details about Malay civilisation of the 17<sup>th</sup> century. This study uses review method to the vocabulary in the domain of religion, geography, trade, mathematics and astronomy. The study found that vocabulary in the domain of religion contains the Arabic vocabulary such as 'Allah' *god*, 'syaitan' *devil*, 'Islam' *Islam*, 'Nasrani' *Nazirite*. Vocabulary related to geographical such as 'barat daya' *south-west*, 'barat semata selatan' *south-west*, 'barat semata utara' *north-west*. Vocabulary in the domain of trade such as the word 'lanzan' *almond*, 'majejon', *bitter almond*, 'saffron' *saffron*. Vocabulary in the field of mathematics such as 'satu setengah' *one half*, 'tiga perempat' *three quarter*, 'codee' *twenty*. Vocabulary in the field of astronomy such as the word 'bintang utara' *the north star*, 'bintang siang' *the morning star*, 'bintang zahar' *the evening star*. The vocabulary in Bowrey dictionary meets all the specified fields and show that Malay people in the 17<sup>th</sup> century already have substantial knowledge of science and it is still relevance until now and even being used at the international level.

*Keywords: Malay Dictionary, 17<sup>th</sup> century, Thomas Bowrey, Mathematics, Astronomy*

## INTRODUCTION

Malay world has reached its glory since 7<sup>th</sup> century through the Chinese records stating that there was a kingdom of *Mo-lo-yeu* bestowing natural resources to the China's emperor circa 644-645 AD. Another Chinese record was done by a Buddhist monk named I-Tsing who visited

two governments around the year 675 AD which was referred to *Ma-lo-yu* before he went to India to explore the science of Buddha. The word *Ma-lo-yeu* or *Ma-lo-yu* is related to the Malay word. In addition, Alam Melayu (the Melayu World) is comparable to Nusantara (Omar, 2016). Those records exemplify that the Malay kingdom is already well-known at the international level whether in the tactful relationship, trade and act as a transit point for the strategic area and provides conducive port facilities.

The Malay world reputation attracted Western people consisting of merchants, scholars, government representatives, missionaries, adventurers, scientists and geologists from various countries such as Italy, Germany, Portuguese, Dutch, and English to capture the treasures of the Malay world. Their arrival in Malay world can be associated to the rivalry among Western countries regarding the awareness to master the knowledge, printing, and the territory expansion (Mohamad, 2016) which then flowed in the Malay world with documented description of society, culture, history, and science in the Malay Archipelago.

The swift development of technology and Malay literature dates back to the 17<sup>th</sup> century (Collins, 1996). One of the achievements at that time was the publication of the dozens of words, and bilingual dictionary run by immigrants from the 16<sup>th</sup> century to 20<sup>th</sup> century (Aminurrashid, 1966; Hitam 1961 & Collins, 1996). Apparently, the dictionary is the most important tool in the Malay literature that combines most of the vocabulary used by the speakers and it moves laterally with history and the events that took place at that time. Thus, the vocabulary can reflect civilisation, culture and history of one's community (Mohamad, Harun & Ismail, 2015). Study on dictionary Bowrey ever done by Hasrah (2010) by making observations on the number in Malay. However, the review focuses on the field of mathematics only. Hence, this study wanted to show the use of vocabulary documented in Malay lexicography in the 17<sup>th</sup> century precisely in science namely, in the field of religion, geography, trade, mathematics and astronomy.

### **MALAY LEXICOGRAPHY: THE CLASH OF ARAB AND WEST**

Nathesan (2011) stated that lexicography is a new terminology exists in the dictionary era, and the term first appeared in 1680 in the Oxford English Dictionary. Before the term was introduced, there was a dictionary found in the form of Sumerian clay tablets in the 3<sup>rd</sup> century which documented 1400 words (Bejoint, 2010). Chronologically, the world of lexicography started with a list of glossaries before it develops into a dictionary that meets certain criteria such as definition, pronunciation, spelling, the use of a word in a sentence, and etymology.

According to Ahmad (2002), the preliminary arrangement of the dictionary whether in the Malay world or Western began with the dictionary in the form of a glossary. The earliest edition of Malay dictionary started with a list of bilingual of Chinese-Malay containing 482 words collected from the year 1403 to 1511 and followed by a list of Italy-Malay produced by Antonio Figafetta in 1522. After the publication of those dictionaries, Malay dictionary continues to grow with the production of bilingual dictionaries created by merchants and Western scholars in the 16<sup>th</sup> century until 20<sup>th</sup> century.

The beginning of Malay lexicography has significant relation with the development of dictionary printing in Europe during the Renaissance. Latin dictionary which was produced by

Giovanni Balbi was the world first printed and published dictionary in 1450 and became the pioneer to the publication of other dictionaries (Collins, 2001). Later on, after the issuance of those dictionaries, some forms of bilingual and trilingual dictionaries were produced by the Dutch, French and English.

The implications of the *European Renaissance* can be seen through the development of lexicography printing. Among the driven factors are the inclusion of intellectual and printing technology, trade, and shipping. In the 17<sup>th</sup> and 18<sup>th</sup> century, education and printing grew accordingly in Europe. This matter was disclosed by Baugh & Cable (2002: 201) stated 17<sup>th</sup> century as follows:

“ In the seventeenth and eighteenth centuries, there arose a prosperous trades class with the means to obtain an education and the number of schools, the tremendous journalistic output of a man like Defoe, and the rapid rise of the novel ”.

Intellectual and technological growths have pushed the Europeans to produce a Malay dictionary, so they can use it to learn the Malay language. The preliminary purpose of the production of this dictionary was intended to guide the Europeans to interact with the local community in the business transaction. The intention extended since English-Malay bilingual dictionary produced in 1701 by Thomas Bowrey, began to illustrate the spirit of patriotism. According to his journal, the production of this dictionary was addressed to his nations and it encompassed with map sketches indicating places that use the Malay language.

The production of this kind of dictionary went through a proper planning process as it is said to be heading towards the era of governance in Europe in 1650 up to 1800 (Baugh & Cable, 2002). In 1640, civil war erupted between European countries, then followed with the abdication of Charles in 1660. After 100 years of the publication of Bowrey dictionary, William Marsden produced the scientific Malay dictionary in 1812. The content was developed based on the knowledge of European which transformed the development of Malay dictionary towards the knowledge research (Hitam, 1961). In the mid-18<sup>th</sup> century, the European began to grasp the study of language as a principle of use (doctrine of usage). Motivation and determination of the production of both dictionaries vary according to history and the events that occurred that time. The clash of knowledge and Western technology allows Malay dictionary being documented and published.

In the meantime, Malay world has experienced the collision with the Arab. The arrival of Islam to Malay land was clearly visible with the discovery of Inscribed Stone dated 1303. The writing on the Inscribed Stone was written in Jawi, which was influenced by Arabic writings and adapted to Malay pronunciation. However, based on the evidence found on Syekh Abdul Kadir Ibn Husayn Shah Alirah tombstones dated 920AD in Tanjung Ingggeris, Alor Setar, Kedah, and an Arabic inscription on tombstones in Teluk Cik Munah, Pekan, Pahang dated 1028AD shows that Islam had already embarked in Malay in the 10<sup>th</sup> century. The glory of Malay world which referred to as the golden age was in the 17<sup>th</sup> century where the epoch clash of Islam and West had contributed significantly to the development of Malay language. The influence of Islam in the 17<sup>th</sup> century has brought sparkling remarks to the Malay language with the use of Arabic writing system and Arabic vocabulary (Collins, 1996).

## **BOWREY DICTIONARY 1701**

The publication of Malay dictionary in the previous 400 years' time has shown virtuous progress when the word list has grown to a bilingual dictionary, thus, allowing the publication of monolingual dictionaries exactly like *Kamus Dewan* which is available nowadays. Furthermore, the number of Malay vocabularies are constantly increasing with improved spelling and meaning, information placing such as sentence examples, and etymology.

Among the essence contribution of Western researchers in the Malay world is the first dictionary which was written by Englishman in a bilingual form that is 'English-Malayo and Malayo-English'. This dictionary is considered as the first dictionary published as the previous one was in the form of a glossary list. Malay language data have been collected by Bowrey since the beginning of 17<sup>th</sup> century when he had first arrived in India in 1669. The dictionary publication was produced in the early 18<sup>th</sup> century. Therefore, the data of the language can describe the events and history that occurred back then in the Malay world. Thus, the dictionary is selected to be studied because its existence is in the radiance of Malay civilisation.

Bowrey dictionary has the characteristics of a complete dictionary as it contains acknowledgment, preface, and map sketches at the front. The body encompasses with the matching word entry, word with definition, the examples of sentence use, etymology, while at the back is covered with Malay grammar such as singular words, plural words, verbs and pronouns, examples of various conversation, dialogues, letters written in English-Malay, and also months in Islam. This dictionary applies *Rumi* writing in both parts of the English and the Malay. For the Malay language, Bowrey spelled the words using *Rumi* writing symbols. Unsurprisingly, the spelling of the Malay word has the English sound elements. For instance, the sound [k] in Malay denoted by the letter /c/ 'akal' and becomes 'acal' in Bowrey dictionary.

Thomas Bowrey or also known as Captain Bowrey was an independent trader and has tremendous sailing experience in the Malay Archipelago for 19 years. At the age of 19, Bowrey sailed to the East and had a stopover at Fort St. George, Madras, India as a sailor and an independent trader. There were numerous trading spots that Bowrey had discovered such as the Gulf of India, Malay Peninsula, Celebes, Sumatra, Borneo, Bantam, Batavia, and a few more ports in Java. Among the traded goods that found were spices, clothes, gold, jewels, Chinese silks, and slaves. In his voyage back to England, Bowrey used some of his time by documenting Malay vocabulary and finally turned out to be successfully printed and published in London in 1701. The dictionary was not only compiled the vocabulary used by the community in the archipelago. Nonetheless, it also describes thoroughly about the geography and religion of the Malays in the preface of this dictionary. Additionally, the vocabulary or term used in Mathematics and astronomy also can be found in this dictionary to indicate the immense of knowledge among Malay people at that time.

## **METHODOLOGY**

This study aims to examine the data of Malay lexicography materials in the 17<sup>th</sup> century. A bilingual dictionary which is 'English-Malayo and Malayo-English' by Thomas Bowrey was published in 1701 in London and being used as research materials involving entries A to Z. Bowrey dictionary contains two parts respectively which are English-Malay and Malay-English.

For the purpose of this study, only Malay-English part is used to be examined and narrowed down to the selected parts, which is linguistic data vocabulary and it contains domains such as geography, religion, commerce, mathematics, and astronomy. Thus, this study implies the analysis and findings through the 17<sup>th</sup> century perspective and the present.

## **FINDINGS AND DISCUSSION**

This study discusses the Malay world in the 17<sup>th</sup> century and analyses the selected vocabulary in the domain of geography, religion, commerce, mathematics and astronomy in Bowrey dictionary (1701). The findings and discussion will be explained in two aspects. The first part will be discussed on how Bowrey portrayed the Malay world in terms of its position, religion, and commerce. Secondly, the analysis continues to examine the vocabulary in the domain of science such as geography, mathematics, and astronomy.

## **THE DEPICTION OF MALAY WORLD**

The position of Malay world as described by Bowrey was ranging from south of Johor until up north. The community communicates by using the Malay language. This language acts like their mother tongue, common language, and trading language in all island of Sumatra, Java, Borneo, Makassar, Bali, Salayer, Bantam and other islands. Bowrey added, the usage of Malay language in the islands was entirely different from the Malay language spoken in the Malay states but still understandable. Moreover, Bowrey also illustrated a map to indicate the places that use the Malay language. Among the places specified in this dictionary such as Malacca, Pattani, Kedah, Borneo, Bali Bantam, Macassar, Bali, Java, Bengkulu, and Perak.

Bowrey's knowledge not only limited to the position and name of places in the Malay world but even recognize the name of the countries referred to by the locals and merchants such as 'Palastin,' 'Israel,' and Turkey. In addition to that, he sketched along a map to enable his people to discover the Malay world by themselves as he mentioned that his primary intention was to produce the dictionary for his nations. The most remarkable part of the dictionary is the clear map sketch of the position of Malay Archipelago states. Surprisingly, the map has almost no difference with the existing map today. Hence, this situation illustrates that the Malay world is long occupied and observed by other nations for a particular purpose. Bowrey's skills in mapping his visited places can be seen through his published document namely; '*A Geographical Account of Countries Round the Bay of Bengal, 1669 to 1679*', '*Description of the Coast of Africa from the Cape of Good Hope to The Red Sea 1708*', and '*a chart of the Straits of Singapore*'.

## **RELIGION**

In the preface, Bowrey described the religion professed by the community in the Malay Archipelago was the religion of Mohamad PBUH, as to the religion of the Malayo's, they are now Mohametans. The majority of Malay community at that time profess to *Islam*. He assumed that Malay population was formerly Pagan due to the Malay vocabulary did not have the name of god, angel, church or the devil, except for the language borrowed from Arabic. The written language also uses Arabic writings which are *Jawi*. More to add, Bowrey, stated there were

adapted words from Arabic, Persian, and Hindustani used by the locals, such as wheat and bread.

Among the words recorded in the dictionary referred to the religious context such as 'Allah' *God*, 'jin' *devil*, 'syaitan' *devil*, 'Islam' *Islam*, 'nasrani' *Nazirite*, 'nadir' *point in the heavens*, 'Zabur' *psalm*, 'halal' *defined*, 'haram' *charge*, 'haji' *pilgrim*, 'firman' *permission*, 'nikmat' *delicious*, 'Taala', 'akhirat', 'kiamat' *the last day*, 'kafir' *insidel*, 'malaikat' *angel*, 'rahim' *the womb*, 'rahmat' *clemency*, 'rezeki' *food, diet*, 'bala' *vulgar people*, 'hak', 'baligh' *grown*, 'alkalam' *theologie*, 'doa' *prayer*, and 'berkat' *blessing*.

Bowrey also concerned towards religion and the Malay culture. It was reflected on the rear page of dictionary about months in Islam, and it is matched with the months in *Anno Domini (A.D)*. The noun of time and months recorded in the dictionary such as; *awal* - early, *akhir* - last, *fajar* - dawn, *maulid* - Christmas, *musim* - season, *zaman* - time, *Ahad* - Sunday, *Isnin* - Monday, *Selasa* - Tuesday, *Rabu* - Wednesday, *Khamis* - Thursday, *Jumaat* - Friday, *Sabtu* - Saturday, *Muharram*, *Safar*, *Rabiul awal*, *Rabiul Akhir*, *Jamadil Awal*, *Jamadil Akhir*, *Rejab*, *Syaban*, *Ramadan*, *Syawal*, *Zulkaedah*, *Zulhijah*.

In addition, the letters in Arabic which written in *Jawi* matched with Rumi alphabet. The interaction with local communities in such an extended period give advantages to Bowrey in comprehending Malay community lifestyle that was closely related to Islam. It also allows other nations especially English people to have at least basic knowledge of the Malay world.

## TRADE

Malay world and trading activity have a significant relationship due to its entrepot port that brings together traders from all over the globe. Malay world was known and famous in trading activities. Among the recognized products are spices and tropical products such as ivory and rattan. Besides that, as mentioned by Bowrey in his dictionary, not all the goods were originated from Malay world. There were also other products available in the port as the traders practice the goods exchanged. The products that can be found such as, 'kimkha' *silk*, 'jawan' *rosin*, 'rebab' *musical instrument to be played on with a bow*, 'rebana' *kettle-drum*, 'kubah' and 'lanzan' *almond*, 'mazejon' *bitter almond*, 'saffron' *saffron*, 'tufah' *appel*, and 'zabib' *raisin*, 'gandum' *wheat* and 'anggur'.

On another note, goods such as clothes, musical instruments, and foods are coming from Europe and the Middle East, and not originated from the Malay Archipelago. For example, the influence of foreign language can be seen through the word usage for the word 'lanzan' which refers to almond, originating from the Middle East. However, the word 'lanzan' is no longer used nowadays as it has been replaced by the word 'badam'. The word 'badam' is the borrowed word from Hindi and being used by almost Asians. For musical instruments, most of them derived from the Arab countries, such as 'rebana' and 'rebab'. On the other hand, China was known as the silk manufacturer. One of the silk namely 'kimkha' was the merchandise from China but the word 'kimkha' itself is an Arabic word. Jones (1978) translated 'kimkha' in English as 'brocade' which is a thick fabric with gold or silver thread. Bowrey on the other hand, deciphered 'kimkha' as 'wrought silk', meaning that, the fabric is decorated with care. The thing is, both of the definitions given were within the similar context.

## GEOGRAPHY

Bowrey dictionary was also comprising information on Malay geography. It can be seen through the direction determination of East, West, South and North. Then, these words were expanded to several parts, as we can refer to the 'BA' entry; the word 'barat' (West), which is detailed to 'barat daya' (south-west), 'barat semata Selatan' (south-west), 'barat semata utara' (north-west), 'angin barat' (west-wind), 'laut barat' (west-sea), 'negeri barat' (west-country), 'pihak barat' (west-parts), 'sebelah barat' (west-ward, west-side). Barat daya means the middle direction in between east and south, while barat semata Selatan can be defined as the direction in the midst between west and south. Most of Malay people distinguished about the presence of the Europeans who came from the West. It is a common thing to know the traders' place of origin, as various nations came as a merchant to Malay world. The description of the terrain position indicates that Malay people have a wide of geographical knowledge. As proof, the geographic terms are still used until now due to its flexibility.

## MATHEMATICS

Malay world was renowned as a place of entrepot trading. Therefore, it must have a standard calculation system to facilitate transactions with various vendors from around the countries. Abdul Razak Salleh (2012) stated the Malays used their fingers to symbolize a number as practiced by Europeans before they took Arabic numerals in the 17<sup>th</sup> century and is practiced today in stock exchange business. It is no doubt that mathematics in Malays are on a par with Western countries.

The calculating system are included in the body and at the end of the dictionary. However, specified calculating system were placed as such to facilitate the searching because it is important for the Europeans to come and trade in the Malay world. Bowrey gave the Malay calculating system that is matched with the Western calculating system. Below is the example of calculating system available in Bowrey dictionary:

Table 1: Vocabulary of Mathematics

English	17 <sup>th</sup> Century	Present
One	<i>Sa</i>	<i>Satu</i>
Ten	<i>Sa pooloo</i>	<i>Sepuluh</i>
Eleven	<i>Sa blas</i>	<i>Sebelas</i>
Twenty-one	<i>Dua pooloo satoo</i>	<i>Dua puluh satu</i>
Twenty-eight	<i>Dua pooloo delapan</i>	<i>Dua puluh lapan</i>
A hundred	<i>Sa ratoos</i>	<i>Satu ratus</i>
A thousand	<i>Sa reboo</i>	<i>Satu ribu</i>
Ten thousand	<i>Sa laxa</i>	<i>Satu laksa</i>
A hundred thousand	<i>Sa ketee</i>	<i>Satu keti</i>
One quarter	<i>Sa pirampat</i>	<i>Satu perempat</i>
One half	<i>Sa tenga</i>	<i>Setengah</i>
Three quarter	<i>Tiga pirampat</i>	<i>Tiga perempat</i>
Twenty	<i>Codee</i>	<i>Kodi</i>

The word that has a single-digit number '0' is referred to as 'sa - one,' the word with two-digits number '00' is pronounced 'belas – twelves' and 'puluh – dozens' , while the word with three digits number '000' referred to 'ratus – hundred'. Next, the word with four-digits number '0000' called 'ribu – thousand' and the five-digits number '00000' and six-digits number '000000' is referred to as 'laksa - tens of thousands' and 'keti - hundreds of thousands'. The system development has led to Malay counting system for the number 'laksa', and 'keti' was no longer used and replaced by 'tens of thousands' and 'hundreds of thousand' nowadays. Also, the term of number zero to tens of thousands or 'laksa' already existed in the 7<sup>th</sup> century AD in the Malay world and those conditions are comparable with Hindi and Islam civilisation, and its existence was earlier than both civilisations (Abdul Kadir, 2015).

Another counting system used in Malay calculating system is 'score', which means 'twenty'. For example, in Bowrey's note, the word 'score' referred to as *dua puluh sekodi* (just twenty is a score). Typically, the word 'score' associated with a sheet count and other counts. A 'score' indicates there are twenty pieces of cloth in one package. Nowadays, the word count 'score' is still used by the elder particularly, and fabric sellers. The word 'score' has the same concept of 'dozen' which currently being used in a Western calculating system. The word 'dozen' here means twelve; as an example, 'a dozen of milk' means a box containing twelve cans of milk. In Malay poetry, there is a word 'score' that refer to the sheets of cloth as follows:

Pecah cawan pecah botol,  
Pecah menimpa kodi kain,  
Kalau abang nanti yang betul,  
Saya tidak mencari yang lain.

Broken cup broken bottles,  
Broke and hit the cloth score,  
If you are the one who is correct,  
I will not find another person.

(Source: PPRM DBP)

The used of 'score' has shown that the Malay world was one of the biggest fabric trade places.

Besides, Malay community also has its own multiples system such as the word 'kali'. For instance, in the entry 'DU', the number 'dua' were placed 'dua kali' (two times), 'dua kali lebih' (twice as much), and 'dua lapis' (two-fold, double). Indeed, the 'Kali' system is still used today and the calculation is similar to the international calculating system. It is also equivalent to the use of Malay measurement system based on a quarter system which is akin to the system utilized by the English. This situation illustrates the Malay community already mastered Mathematics at a high level. Also, in the 'GA' entry, it displays the word 'double' which described as double in profit or value. For instance, the infinite number to say 'hundreds', demonstrated multiples amounts which are difficult to determine the amount.



The word 'even' is also part of the numeral system in the Malay community. Bowrey recorded the word 'even' with English words such as, *even in number, complete, entire, full in number, just, wholly, entirely, completely*. The use of an even word can be seen in an example of a phrase '*sepuluh genap*' which refers to, *complete ten, even ten, just ten*. The word 'even' is the number that has its pairs. For instance, number 'four' has its pair if positioned separately, and each one will be 'two' + 'two' = 'four.' An Even number is opposed to the odd number, for example, the number 'three,' if separated in pairs, will be 'two' + 'one' = 'three.' In the past, Malay community beliefs on even numbers like 'two', 'four', 'eight' and 'ten' often denoted as numbers that have certain wisdom. Once upon a time, the cross country story of *Raja Berdurai Putih*, because of Anggun Cik Tunggal 'two' with Awang Selamat, they later on safely crossed the country (Dollah, 2015). The Malay community is very close to the numbering system, almost every activity associated with numbers, for example, wickerwork, weaving, and numbering carving to create a pattern, so that it will look symmetrical. Other than that, Malay medical also use numbering to treat patients as an example, flower bath treatment for the beauty care requiring patients to provide seven types of flowers which are in odd numbers. Subsequently, the medical today also use calculation system in treatment so that the dose given to the patients are suitable and precise.

Bowrey dictionary also explained the name of currency used in the Malay Archipelago. It is known as '*re'all*' in the Malay language, currently perceived as '*riyal*' which means dollar in English. 'Riyal' currency is now replaced by the currency '*ringgit*.' However, the term of 'riyal' is still being used in Terengganu and Kelantan. Other than Malay currency, Bowrey also recorded the monetary system from Arab country such as '*draham*' money.

The numbering system clearly illustrates the Malay community were efficient in numbering system due to the usability and availability of numbering to be used by traders as they came from around the world and had their way of calculation and currency system.

## **ASTRONOMY**

There are bundles of ancient Malay manuscripts on astronomy that can be found in Malaysia, Indonesia, Netherlands, and Britain (Abdul Kadir, 2015). For instance, there are at least five manuscripts on astronomy has been discovered in Netherlands. Discovery of these documents illustrates that Malay people have an intense level of interest in this material and can be said as a great observer of the universe. Research that has been conducted in this field has its definite purposes such as, to specify the journey direction (sea and land), to forecast the weather, and for farming purposes. One of the Bowrey's notes concerning the universe is about the diversity of words on 'star.' Variation of names on a particular thing indicates that the people in the community are expert as they can describe it in detail. Table 2 shows the vocabularies on 'stars' that has been used in the Malay Archipelago:

Table 2: List of Vocabularies on Stars in the Malay Archipelago

17 <sup>th</sup> Century	English	Present
<i>Bintang ~</i>	Star ~	<i>Bintang ~</i>
<i>Bintang beraleh</i>	A star that shoots	<i>Bintang beralih</i>
<i>Bintang berassap</i>	A blazing star, a comet	<i>Bintang berasap</i>
<i>Bintang berecor</i>	A blazing star	<i>Bintang berekor</i>
<i>Bintang bobbee</i>	The morning star	<i>Bintang babi</i>
<i>Bintang kartika</i>	The seven star	<i>Bintang Kartika</i>
<i>Bintang ootara</i>	The north star	<i>Bintang utara</i>
<i>Bintang seang</i>	The morning star	<i>Bintang siang</i>
<i>Bintang zahar</i>	The evening star	<i>Bintang zahar</i>

The presence of stars, its shape, and its light is pivotal in predicting the weather for the cruise purpose, and in daily life. Stars also often associated with the practice of divination or fortune-telling under the influence of Hinduism. Nevertheless, the knowledge of stars is used to facilitate the daily life. For example, Pleiades (*Kartika*) star or also known as *Bintang Tujuh*, *Bintang Ketika*, *Bintang Biduk*, and *Bintang Jong* are the brightest stars facing towards South at the middle of the sky. These stars became the guides for the travelers whether to head to the north or south and to measure the time at night (Zainal, 2015). Bowrey’s notes on the name of the stars revealed that he knew and understood about Malay astronomy which was frequently used in determining the path during the voyage as he has immense experiences in sailing.

### CONCLUSION

Dictionary is not just an ordinary document. Besides its contents such as vocabulary, definition, and spelling, it also explains about community, cultures, history, and events. Various vocabularies that can be found in dictionary represent the level of knowledge owned by the community. Therefore, it is suggested that future research should be focused on this kind of document since the collection has yet to be explored. Exploration on the ancient documents is one of the effective ways to restore the national spiritual and develop the national identity of the society.

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