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A mathematical Phenomenon in the Quran of Earth-Shattering Proportions: A Quranic Theory Based on Gematria Determining Quran Primary Statistics (words, verses, chapters) and Revealing its Fascinating Connection with the Golden Ratio

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ABSTRACT

As Almighty God has promised to protect the Quran from alteration, corruption or distortion. Historically, the scripture of the Quran has been subjected to various intense mathematically-based studies to reveal the protection mechanisms embedded in the composition of the Quran and to provide evidence of its credibility, authenticity and divinity. Indeed, this study has discovered a mathematical framework in the Quran based on gematria (Abjad numerals) that provides substantial evidence of Quran's divine authorship and its perfect protection from human tampering. Essentially, this study has proposed a new research direction in numerological studies of the Quran. This study is textually based on the text delivered to Prophet Muhammad and drawn using the primary 28 alphabets of the Arabic language (Uthmanic manuscript), the 112 un-numbered Basmalahs and the names of the Quran chapters. A numerical value (70.44911244) which is referred to in this study as the Quran Constant (QC) was derived to represent the mathematical design of the Quran. The Quran Constant has been found to be fundamental to the current study, whereby the Quran Constant manifests in all derived mathematical equations. The ratio of the total number of chapters in the Quran (114) which represents the physical design of the Quran divided by the Quran Constant (70.44911244) which represents the mathematical design of the Quran gives 1.6181893; it is amazingly almost equal to the golden ratio. This study has also discovered that Almighty God embedded mathematical equations in the composition of the Quran that can easily lead to determination of the Quran's primary statistics (words, verses and chapters). This study has admirably discovered three elegant mathematical equations that determine the total number of words, verses and chapters with great accuracy. More importantly, letters/word ratio calculated in this study can be practically seen as a validation criterion of both the total number of letters and the total number of words in the Quran. Finally, what does this proof? It proves that the Quran's miraculous mathematical structure discovered in this study provides unequivocal mathematical proof that the Quran was divinely authored and has been perfectly preserved from the day it was revealed. Indeed, we are witnessing

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a mathematical phenomenon of earth-shattering proportions~ a miracle beyond earthly justification and human comprehension.

Keywords: Abjad numerals, golden ratio, mathematical miracle, Muhammad, Quran, theory.

1. Introduction

After introducing the theory of 19 by Rashad Khalifa in 1974 which states that the number 19 is the Quran's common denominator, many researchers have pushed their research along the lines of this theory in an attempt to provide further evidence of the Quran divinity. As a matter of fact, this theory has taken the world by storm. Even though, this theory was observed to have some fundamental flaws, it remains a mathematical phenomenon in its own right. Certainly, the theory of 19 has opened new research venues and frontiers in the science of Quran numerology. Therefore, researchers have been working diligently hard to achieve sound results to provide convincing proofs of the divinity of the Quran. Indeed, throughout history, many Muslim scholars have attempted to provide evidence to authenticate the divine origin of the Quran, particularly for those people who deny the authenticity of the Quran in the first place. The literary quality of the Quran in textual elegance, content and form has contributed largely to its acceptance by many non-Muslims. In fact, the Quran has been found by many prominent academic scholars (Muslims and non-Muslims) to be by large more superior than all popular literary productions (Tzortzis, 1960; Abdul-Raof, 2000; Khan, 2012; Aram, 2016). Indeed, Quran's powerful style is seemingly incompatible with any existing well-known literary works (Abdul-Raof, 2000; Lawrence, 2005; Aram, 2016). More importantly, the Quran has repeatedly challenged the Arabs and non-Arabs to produce similar chapters or even one chapter. The textual quality of this great divine book has historically and noticeably helped in providing evidence of divine authorship. However, nowadays many non-Muslims are not quite convinced of the fact that the Quran is a divine revelation. Indeed, Muslims' opponents and enemies have been persistently attempting to dispute the Quran's authenticity and its remarkably superior character as a literary product. Historically, the Quran has been bombarded with different allegations, accusations and criticisms that question and even negate its historical authenticity, legitimacy and morality. However, some have gone even further by claiming without providing any proof or scientific evidence that the Quran is being the work of multiple hands and of human manufacture. Above all, many non-Muslims, skeptics and non- believers have deliberately tried to defame the Quran and Islam altogether.

Many Muslims scholars have invested much efforts in the pursuit of truths and facts of the Quran, particularly those related to the doctrine of miraculousness of the Quran to substantiate and prove its credibility and God's total involvement in revealing the Quran (Khalifa, 1973; Deedat, 1991; Sa'ari and Borhan, 2003; Taslaman, 2006; Tuncer, 2006; Musa, 2008; Hassan and Redha, 2011; Rajabnejad, 2012; Ta'a et al., 2012; Azarpour et al., 2014; Saki et al., 2014; Haftador, 2015). As a result, recent research attempts have emerged to consolidate Quran's divine authorship using a variety of concepts and methodologies. The introduction of Rashad Khalifa's theory of 19 in 1974, whereas the number 19 is the code on which the Noble Quran is mathematically structured (Khalifa, 1973; Khalifa, 1981), and according to him, the number 19 numerically acts as a common denominator in many cases in the Quran. Khalifa proclaimed that his new theory had introduced a new wind in the world of theology. Verily, Rashad Khalifa, the Egyptian-American biochemist, deliberately betrayed his faith and Muslims by attempting to convince the world that the Quran is mostly structured according to the mathematical number 19 and the whole Quran is protected by this number. After the introduction of computers, people came to believe that many cases assumed true according to Khalifa, had been found erroneous. Indeed, people have definitely realized and recognized that Khalifa had, in many cases, made intentional mistakes to back his theory (Malik, 2006; Taslaman, 2006; Pahlevan and Shafiei, 2010; Khan, 2010). Also, Khalifa removed two verses from the Quran in the intention to convince the world that his theory was comprehensive. Possibly, most of these conclusions and hoaxes solely were performed by Rashad Khalifa for the purpose of satisfying his own ego. After all, most of Khalifa's results are correct and reveal a real phenomenon that deserves more substantial consideration and attention than it has received. Further, Khalifa's theory has

opened a new window for research. As a result, many researchers have turned to Quranic numerology and become captivated by this research pattern. Indeed, Quranic numerology is still young and on-going research pattern, and new findings are continuously emerging due to the extensive use of computing potentials and resources. In fact, since the birth what is called the theory of number 19, many researchers have been following the same pattern of research that depends basically on counting words and letters in the Quran to check their divisibility on certain numbers such as 19 and 7. As well as manipulating chapter numbers and verse numbers to see if there are any mathematical arrangements of any kind that could produce numerically striking outcomes. Indeed, there have been many interesting patterns and connections of that nature in the Quran that could not happen by a mere chance and must be of a divine institution. In similar fashion to Khalifa' approach, Abdul Daem Al-Kaheel has proved the importance of number 7 in many cases in the Quran (Al-Kaheel, 2006). In similar capacity, Jarrar (2001) has also documented many interesting mathematical patterns in the Quran by utilizing the Abjad numerals system (gematrical system). Indeed, Jarrar has been working hard through Abjad numerals to find numerical miracles in the Quran to prove Quran's divine origin.

Apparently, all research works in relation to the numerology of the Quran lack comprehensiveness and sophistication. In particular, no study has yet included the whole contents of the Quran. Also, most research studies have focused on manipulating numerical facts about chapters and verses in order to find certain mathematical patterns that fit a divisibility scenario of some kind. Further, literature lacks consistent methodologies and appropriate research paradigm in the field of Quran numerology and this usually creates controversy, confusion, division and raise questions of the plausibility, quality and viability of the research results. Undoubtedly, in current literature, there are particularly inconsistent methods in counting letters and words and therefore this frequently brings about criticism of the numerical conclusions reported by these studies (Philips, 1987). Therefore, given the nature of the current literature, there is a gap in the current literature arising from the absence of more sophisticated and advanced research analysis to tackle the complexity of the Quran. Indeed, the current study has the intention to avoid abovementioned pitfalls. Hence, to ensure full conformance with the first drawing of the Quran (Uthmanic manuscript), the letter is only counted if it is physically written. Furthermore, the nature of the approach used in this study is far more sophisticated than previous studies implemented on all Holy Scriptures.

The primary objective of this study is to present mathematically-based evidence that will indisputably provide concrete proof to authenticate and support the fact that the message of the Quran is divinely inspired and codified beyond human capability. Beyond doubt, mathematically-based protection mechanisms may have been most properly embedded in the composition of the Quran to provide mathematical means to preserve it. Therefore, the development of the this theory has been highly motivated and driven by the categorical recognition of the author that Almighty God may have embedded varying mathematical algorithms, equations and models for protecting the Quran, as well as to prove its divinity and to emphatically exclude any human influence on the manufacture of the Quran. Because Almighty God promises that the Quran will always be preserved and protected from any corruption such as addition or deletion or relocation of any of its verses from chapter to another. Therefore, Almighty God may have embedded protection mechanisms that based on mathematically-based algorithmic functions. Therefore unveiling any of these algorithms would help unlock many of the Quranic secrets, particularly those related to the Quran's primary parameters (words, verses and chapters) as well as how the Quran's design is related to the golden ratio.

Furthermore, this study is set to mathematically and numerically validate and authenticate the first drawing of the Quran (Uthmanic manuscript) related statistics such as the total number of words, verses (Ayats) and chapters (Surahs) of the Quran (Figure 1: displays a sample of the first drawing of the Quran). As far as I am aware, this type of analysis has never been conducted before and no one has yet attempted to perform such analysis. Possibly, researchers and scholars have not been able to recognize that this type of analysis could deliver any promising outcomes of any nature to support and back the divine authorship of the Quran. The current study has diverted away from the traditional approaches that have been widely and commonly utilized in studying the numerical miracles in the Quran. The new approach is

apparently a novel one because we strongly believe in the fact that since the Quran is the words of God, thus the Quran may have come with a built-in mathematically-based algorithms, models and equations that demonstrate with numerical evidence its divinity and credibility and prove once and for all its divine authorship. This theory has been developed based on the popular system of Abjad (gematrical) numeral system. It is an old alphabetic system and the Arabic system of numerology, which is known as Abjad notation (Abjad numerals), has been very popular long before Islam in which 28 Arabic alphabets are assigned numerical values (see Table 1). The rest of this study is structured as follows. Section 2 discusses the concept of Abjad numerals and its historical development and significance. The third section presents the methodology used in the current study and the results related to the Quran primary statistics and its related Abjad values. Section 4 discusses the theoretical formulation of the present study. The fifth section presents the contributions and concluding remarks of this work. Finally, the last section discusses some of the implementations and future works expected to emerge as a result of developing this new Quranic theory.

2. Abjad numerals

The intention of this study is to develop a mathematical theory to expose the built-in mathematical system from which the Quranic basic statistics (words, verses and chapters) can be numerically calculated with remarkably high level of accuracy. This theory is based purely on numerological calculations in which each Arabic alphabet (28 alphabets) is assigned a numerical value as shown in Table 1. This decimal numeral system has been known for a long time, whereas in Arabic this numeral system is referred to as Hisab Al-Jumal (King, 1974; Schanzlin, 1934). In fact, this method of calculation was extensively utilized long before the revelation of the Quran and even before the development of the Roman or Arabic numeral systems as we know today (Farooqi, 2003). This numeral system was used in the early days for mathematical analysis and numerology to predict the future and this type of numbering systems were commonplace in the annals of history (Farooqi, 2003). However, there is no evidence to prove the origin of the Arabic system of numerology (Abjad numerals). Historically, the Arabs were known to be fascinated by this numeral system and they have widely used it for different purposes, particularly dates of important and interesting events. Historically, the origination of this numerical system is unknown and still a mystery, even many have declared that this system of numerology is of a divine origin (Yerachmiel, 2000). However, both Greeks and Hebrews were documented to extensively use the gematrical numbering systems that accommodates their own languages (Sanders, 1918; Hirshman, 2000; Blech, 2004; Michell, 2008).

Using this numerical system in the Quran has not yet delivered any prominent results. As a result, people have fallen into two camps: those who actually think it is a fruitless idea to continue utilizing this numerical system in the Quranic numerical studies. Because, according to them, no one has yet been able to find something worthy of recognition and attention (Al-Kaheel, 2012). The other camp is very much willing to continue experimenting this numerical system in the Quranic mathematical calculations (Jarrar, 2001) because variations in mathematical structures can never be exhaustive. Therefore, if there are not many brilliant contributions from using this numeral system in the Quran, this does not strictly imply that this mathematical system can never be of any mathematical value in the numerology of the Quran. Admittedly, many studies have failed to produce any significant outcome to support the divinity of the Quran (Al-Kaheel, 2012).

However, some interesting mathematical patterns in the Quran have been reported by Jarrar (2001) who has been extensively using the gematrical numeral system (Abjad numerals). The current study will use Abjad numerals system because we believe that its characteristics are mathematically promising. Also, more importantly, the majority of studies conducted through this numerical system have used this crucial numeral system naively and superficially. Indeed, these studies have not been sophisticated enough to make full use of its great potentials and important characteristics. Certainly, this is the first study to unlock the relevance of this numeral decimal system to the Quran numerology.

3. Methodology and results

This study is intended to prove that the Quran statistics (words, verses and chapters) for the first drawing of the Quran can be computed through mathematical structure embedded by Almighty God. The one trillion dollar question: Does the Noble Quran have embedded mathematical equations that can be used to reveal its related basic parameters? If this happens to be true, therefore the probability that the Quran is a human manufacture is comparable to the probability of a hurricane sweeping through a junk-yard and assembling a fully functional space shuttle. Furthermore, this study is set to prove that the Quran has been built based on mathematical framework that divinely and supernaturally embedded in the Quran's composition.

The Quran was revealed during a period of 23 years and it was drawn in Arabic using the primary 28 alphabets of the Arabic language (See a sample of the first drawing of the Quran: Figure 1). Prophet Muhammad (blessings and peace of Allah be upon him) had commanded for the Quran to be written and organized into 114 chapters. As well as, the Quran contains 112 un-numbered Basmalahs (In the name of God, the Most Gracious and the Most Merciful). However, since the revelation of the Quran, naming each chapter has been a debated issue whether these are determined by revelation or otherwise. In fact, the majority of scholars have definitely confirmed that naming of each chapter was a divine revelation inspired to Prophet Muhammad (e.g., Al-Suyuti, 1948). As a result, I believe these names constitute important textual content to be considered in this study. In conclusion, this study will utilize the textual content of the following three divine components: (1) the Quran that consists of 6236 verses and 114 chapters, (2) the 112 un-numbered Basmalahs and (3) the names of the 114 chapters. Clearly, the current study suggests that the whole Quran textually consists of the three components because they are all divinely revealed realities (Al-Suyuti, 1948). Indeed, as far as I am aware, no single study has included all three components. Apparently, no study has yet considered chapters' names as an important element even though most of researchers have been aware of the fact that these names were determined by divine revelation (Al-Suyuti, 1948). Thus, the Holy Quran as a complete entity textually consists of these three divine components.

A committee of experts from various Arab countries headed by Abduldaem Al-Kaheel of Syria has worked hard for almost seven years to develop a digitized copy of the Quran and build software to provide searching facilities in the Quran. They have set the standards for computing the Quran statistics (letters and words) that based completely on the first drawing of the Quran: these standards are extremely fundamental to set the proper rules and guidelines for counting letters and words (Al-kaheel, 2012). In fact, in the past and today still many researchers have arbitrarily skewed their findings and results to fit their models through unnecessarily adding letters because the Arabic language has the characteristics that some letters (primarily vowels and syllables) have heavy emphasis (stress) on them, specifically the final heavy syllable of a root is normally stressed**.** Therefore, many researchers would simply double the count of these letters when necessary to fit the requirements of their mathematical patterns. Also, this explains why one can find different counts of letters and words of the Quran scattered in literature and websites. Thus, to guarantee full agreement with the first drawing of the Quran, the letter is only counted if it is physically written (Al-kaheel, 2012) and this similar to the English Language. This important requirement has not been considered in the counting process of letters in many studies before therefore methods of counting have been inconsistent. As a result, there have been many criticisms about the numerical conclusions of these studies (Philips, 1987). In order to achieve more realistic results, the current study will follow the rules and the guidelines set by Al-kaheel (2012) because he had established the proper counting criteria for both letters and words and these, of course, are in full agreement with the first drawing of the Quran (Uthmanic manuscript). In fact, Uthmanic manuscript is exactly the same as the first drawing of the Quran (Nöldeke, 1992; Al-kaheel, 2012).

The first upheaval task facing the committee mentioned above was how to write the Quran in a computerized format, so that the features and functionalities provided by existing software applications can be applied easily on the digitized format of the Quran. To achieve this objective, the technical committee headed by Al-Kaheel adopted the same rules used in drawing the first text of the Quran that

was revealed to Prophet Muhammad. The next thing was performed after converting the Quranic text into digital format was to check the text for full compliance with the Uthmanic script. Also, a compatibility check word by word and letter by letter was performed against the digitized document of the Quran issued by King Fahd Glorious Quran Printing Complex in Saudi Arabia (2017). In addition, a free software was developed and launched by Al-Kaheel's technical institution with enormous potentials that make searching in the Quran is technically easy and 100% accurate (see the latest version: Al-kaheel, 2017). For example, in an elegant fashion each chapter and each verse can be tracked and traced so that computation of the total number of letters and words are made easy and 100% accurate. Therefore, as long as the digitized copy is identical to the Quran in every sense, it is expected that the statistics related to the counting of letters and words in the Quran to be 100% exact. Indeed, the only reliable Quran statistics are the data that have been determined proficiently and accurately by the Al-Kaheel. I should remind readers that they are hundreds of websites and even researchers using and reporting inaccurate Quranic statistics, particularly with regard to the total number of letters, words, verses and even chapters. In fact, the most important rule to consider a letter only if it is physically written because this is consistent with the first drawing of the Quran (Al-kaheel, 2012). Also, the letter "واو العطف" (Waaw of copulative) in Arabic and its equivalent in English is the additive "and relation" is considered an independent word and this is precisely consistent with the first drawing of the Quran (Uthmanic manuscript) (Al-kaheel, 2012). In accordance with these considerations, Al-Kaheel's (2017) software has produced the results displayed in Figure 2 and written in Arabic/Hindu numerals ([0,0];[1,1];[2,2]; [3,3]; [4,4];[5,5]; [6,6];[7,7]; [8,8];[9,9]). More, this study has added the English equivalent for all numerical facts in Figure 2. This figure also gives the total number of letters (322604), words (86967) and verses (6236) of the Quran (the first component of the whole Quran). More, this figure gives the frequency of each of the 28 letters in the Quran. Indeed, these figures are believed to be precisely what were revealed to Prophet Muhammad.

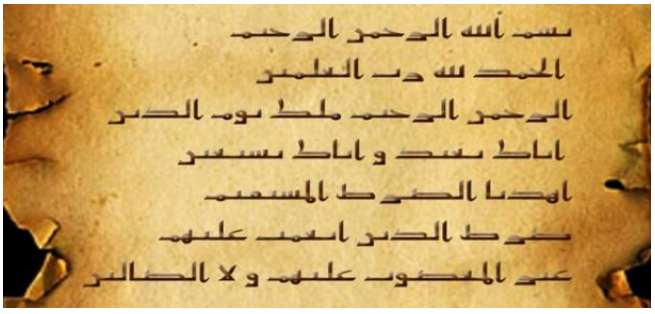

Figure 1: A sample of the first drawing of the Quran

The whole Quran is textually the sum of all three divine components (See Table 2 and Table 4): (1) the Quran which consists of 114 chapters, 6236

Figure 2: Quran Statistics (The first drawing of the Quran – Uthmanic text)

verses, 86967 words and 322604 letters, (2) the 112 un-numbered Bismillahs (each Bismillah has 4 words and 19 letters) which consist of 448 words and 2128 letters and (3) the names of the 114 chapters which consist of 115 words (chapter Al-Iimran is a two-worded name) and 652 letters. The whole Quran consists of 87530 words and 325384 letters (Table 4). For consistency, I should remind readers that chapters' names have been written in the current study

in a way that it conforms to the first drawing of the Quran (see Table 2). Finally, this study will calculate the total Abjad value of the 325384 letters for use in the forthcoming analysis.

This study will compute the Abjad value (gematrical value) of the Quran based on the first drawing of the Quran, the text that was vocally revealed in Arabic through angel Jibrail to the Prophet Muhammad and drawn in 28 alphabets under the guidance and direct command of the Prophet himself with a minimal number of diacritics and symbols. The text that will be included in the current study is the total sum of the text of the three divine components of the Holy Quran. The first step in the current study is to calculate the total Abjad value (AV) of the Quran, and this is equal to the sum of the Abjad values of the three divine components of the Quran as already mentioned. First, from Table 3, it is apparent that the calculated Abjad value of the Quran (114 chapters, 6236 verses, 86967 words and 322604 letters) equals 23378278. Second, the total Abjad value of the 19 letters that constitute the Bismillah is 786, thus the total Abjad value of the 112 un-numbered Bismillahs is (=112×786) 88032 (Table 4). Third, the total Abjad value of the 652 letters of the names of the 114 chapters is 40234 (Table 2). Finally, the total Abjad value (AV) of the Holy Quran is the sum of the three components (23378278+88032+40234) which equals 23506544 (Table 4). Indeed, this is the first study to incorporate the full text of the Quran in a single study because most of the existing research studies have included only a small portion of the Quran. Thus, effectively, the current study will be more relevant to the Quran (as a whole entity) than previous studies. The importance of the total Abjad value calculated in this study (23506544) lies in the fact that this number incorporates the total Abjad value of the whole Quran. Apparently, the total Abjad value of the whole Quran acts as a protection mechanism to protect the Quranic text from human tampering and addition.

Further, the current theory recognizes that the total sum of the number of every individual verse (the cumulative sum of verse numbers) in the Quran is an important parameter for the purpose of achieving the objective of the current study, because this parameter has direct key role to play in protecting the structure of the Quran. Because any change in the Quran with respect to deleting a verse or moving a verse from chapter to another chapter or adding a verse to the Quran or minor distortion of the Quran's physical arrangement will force this parameter to change, therefore this parameter is extremely important from mathematical structural design perspective. As a result, this study calculates the total sum of the number of every individual verse (see Table 2), for Example, chapter 1 has 7 verses so its sum is 1+2+3+4+5+6+7=28 and chapter 2 has 286 verses so its sum is 1+2+3+…+286=41041, and this goes through the rest of the Quran giving the final total of 333667 (Table 2): a unique prime number in its own right. Apparently, the cumulative sum of verse numbers of the Quran (333667) plays a central role in protecting the organizational structure of the Quran from distortion of its physical arrangement. Therefore, this golden number (333667) acts as a protection mechanism to protect the Quran's structural arrangement. Indeed, this prime number has unique mathematical properties that have long fascinated mathematicians (see subsection 4.1 below). Therefore, selecting the cumulative sum of verse numbers to equal 333667 must be the act of a supernatural intelligence. This is a substantial verification that a supernatural Designer/Creator should have been involved in the Quran's design and development. Finally, in the coming sections, we will observe the importance of the total Abjad value (AV) of the Quran (23506544) and the total numbers of each individual verse in the Quran (333667) in the development of this important Quranic theory.

Table 1: Abjad values of the Arabic alphabet

Sequential Value	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Arabic Alphabet	ا	ب	ج	د	ه	و	ز	ح	ط	ي	ك	ل	م	ن
English	alif	baa	jeem	daal	haa	waaw	zaay	Haa	Taa	yaa	kaaf	laam	meem	noon
Transliteration Symbol	aa	b	j	d	h	w	z	H	T	y	k	l	m	n
Abjad Value	1	2	3	4	5	6	7	8	9	10	20	30	40	50

Sequential Value	15	16	17	18	19	12	21	22	23	24	25	26	27	28
Arabic Alphabet	س	ع	ف	ص	ق	ر	ش	ت	ث	خ	ذ	ض	ظ	غ
English Transliteration Symbol	seen s	aayn ’a	faa f	Saad S	qaaf q	raa r	sheen sh	taa t	Thaa th	khaa kh	thaal dh	Daad D	DHaad DH	ghayne gh
Abjad Value	60	70	80	90	100	200	300	400	500	600	700	800	900	1000

Table 2: Total number of verses, total sum of numbers of verses, total number of letters of chapters’ names and total
Abjad value of chapters’ names.

Sequential Number	Chapter Name (Arabic) ^	Chapter Name (English)	Number of Verses	Total Sum of Numbers of Verses	Number of Letters of Chapter’s Name	Abjad Value of Chapter’s Name
1	الفاتحه	al-Fatihah	7	28	7	525
2	البقره	al-Baqarah	286	41041	6	338
3	ال عمران	Al-Imran	200	20100	7	392
4	النسا	an-Nisa’	176	15576	5	142
5	المايده	al-Ma’idah	120	7260	7	91
6	الانعام	al-An`am	165	13695	7	193
7	الاعراف	al-A`raf	206	21321	7	383
8	الانفال	al-Anfal	75	2850	7	193
9	التوبه	at-Taubah	129	8385	6	444
10	يونس	Yunus	109	5995	4	126
11	هود	Hud	123	7626	3	15
12	يوسف	Yusuf	111	6216	4	156
13	الرعد	ar-Ra`d	43	946	5	305
14	ابراهيم	Ibrahim	52	1378	7	259
15	الحجر	al-Hijr	99	4950	5	242
16	النحل	an-Nahl	128	8256	5	119
17	الاسرا	Al-Isra	111	6216	6	293
18	الكهف	al-Kahf	110	6105	5	136
19	مريم	Maryam	98	4851	4	290
20	طه	Ta Ha	135	9180	2	14
21	الانبيا	al-Anbiya’	112	6328	7	95
22	الحج	al-Hajj	78	3081	4	42
23	المومنون	al-Mu’minun	118	7021	8	223
24	النور	an-Nur	64	2080	5	287
25	الفرقان	al-Furqan	77	3003	7	462
26	الشعرا	ash-Shu`ara’	227	25878	6	602
27	النمل	an-Naml	93	4371	5	151
28	القصص	al-Qasas	88	3916	5	311
29	العنكبوت	al-`Ankabut	69	2415	8	579
30	الروم	ar-Rum	60	1830	5	277
31	لقمان	Luqman	34	595	5	221
32	السجده	as-Sajdah	30	465	6	103
33	الاحزاب	al-Ahzab	73	2701	7	50
34	سبا	Saba’	54	1485	3	63
35	فاطر	Fatir	45	1035	4	290
36	يس	Ya Sin	83	3486	2	70
37	الصافات	as-Saffat	182	16653	7	603
38	ص	Sad	88	3916	1	90
39	الزمر	az-Zumar	75	2850	5	278

40	غافر	Ghafir	85	3655	4	1281
41	فصلت	Fussilat	54	1485	4	600
42	الشوري	ash-Shura	53	1431	6	547
43	الزخرف	az-Zukhruf	89	4005	6	918
44	الدخان	ad-Dukhan	59	1770	6	686
45	الجاثيه	al-Jathiyah	37	703	7	550
46	الاحقاف	al-Ahqaf	35	630	7	221
47	محمد	Muhammad	38	741	4	92
48	الفتح	al-Fath	29	435	5	519
49	الحجرات	al-Hujurat	18	171	7	643
50	ق	Qaf	45	1035	1	100
51	الذاريات	ad-Dhariyat	60	1830	8	1343
52	الطور	at-Tur	49	1225	5	246
53	النجم	an-Najm	62	1953	5	124
54	القمر	al-Qamar	55	1540	5	371
55	الرحمن	ar-Rahman	78	3081	6	329
56	الواقعه	al-Waqi`ah	96	4656	7	213
57	الحديد	al-Hadid	29	435	6	57

Continue Table 2

Sequential Number	Chapter Name (Arabic)^	Chapter Name (English)	Number of Verses	Total Sum of Numbers of Verses	Number of Letters of Chapter's Name	Abjad Value of Chapter's Name
58	المجادله	al-Mujadilah	22	253	8	114
59	الحشر	al-Hashr	24	300	5	539
60	الممتحنه	al-Mumtahanah	13	91	8	574
61	الصف	as-Saff	14	105	4	201
62	الجمعه	al-Jumu`ah	11	66	6	149
63	المنافقون	al-Munafiqun	11	66	9	358
64	التغابن	at-Taghabun	18	171	7	1484
65	الطلاق	at-Talaq,	12	78	6	171
66	التحريم	at-Tahrim	12	78	7	689
67	الملك	al-Mulk	30	465	5	121
68	القلم	al-Qalam	52	1378	5	201
69	الحاقه	al-Haqqah	52	1378	6	145
70	المعارج	al-Ma`arij	44	990	7	345
71	نوح	Nuh	28	406	3	64
72	الجن	al-Jinn	28	406	4	84
73	المزمل	al-Muzammil	20	210	6	148
74	المدثر	al-Mudathir	56	1596	6	775
75	القيامه	al-Qiyamah	40	820	7	187
76	الانسان	al-Insane	31	496	7	193
77	المرسلات	al-Mursalat	50	1275	8	762
78	النبا	an-Naba'	40	820	5	84
79	النازعات	an-Nazi`at	46	1081	8	560
80	عبس	`Abasa	42	903	3	132
81	التكوير	at-Takwir	29	435	7	667
82	الانفطار	al-Infitar	19	190	8	372
83	المطففين	Al-Mutaffifeen	36	666	8	300
84	الانشقاق	al-Inshiqaq	25	325	8	583
85	البروج	al-Buruj	22	253	6	242
86	الطارق	at-Tariq	17	153	6	341
87	الاعلي	al-A`la	19	190	6	142

88	الغاشيه	al-Ghashiya	26	351	7	1347
89	الفجر	al-Fajr	30	465	5	314
90	البلد	al-Balad	20	210	5	67
91	الشمس	ash-Shams	15	120	5	431
92	الليل	al-Layl	21	231	5	101
93	الضحي	ad-Duha	11	66	5	849
94	الشرح	ash-Sharh	8	36	5	539
95	التين	at-Tin	8	36	5	491
96	العلق	al-`Alaq	19	190	5	231
97	القدر	al-qadr	5	15	5	335
98	البينه	al-Bayyinah	8	36	6	98
89	الزلزله	Az-Zalzala	8	36	7	110
100	العاديات	al-`Adiyat	11	66	8	517
101	القارعه	al-Qari`ah	11	66	7	407
102	التكاثر	at-Takathur	8	36	7	1152
103	العصر	al-`Asr	3	6	5	391
104	الهمزه	al-Humazah	9	45	6	88
105	الفيل	al-Fil	5	15	5	151
106	قريش	al-Quraish	4	10	4	610
107	الماعون	al-Ma`un	7	28	7	198
108	الكوثر	al-Kauthar	3	6	6	757
109	الكافرون	al-Kafirun	6	21	8	388
110	النصر	an-Nasr	3	6	5	371
111	المسد	Al-Masad	5	15	5	135
112	الاخلاص	al-Ikhlas	4	10	7	753
113	الفلق	al-Falaq	5	15	5	241
114	الناس	an-Nas	6	21	5	142
		Total	6236	333667	652	40234

Note: ^Chapters' names are written in accordance with the first drawing of the Quran.

Table 3: The Abjad value of the Quran (322604 letters)

Number	Letter in Arabic	Letter in English	Letter's Abjad Value	Letter Frequency	Total Abjad Value
1	ا	aa	1	52655	52655
2	ب	b	2	11491	22982
3	ج	j	3	3317	9951
4	د	d	4	5991	23964
5	ه	h	5	17194	85970
6	و	w	6	25676	154056
7	ز	z	7	1599	11193
8	ح	H	8	4140	33120
9	ط	T	9	1273	11457
10	ي	y	10	25746	257460
11	ك	k	20	10497	209940
12	ل	l	30	38102	1143060
13	م	m	40	26735	1069400
14	ن	n	50	27268	1363400
15	س	s	60	6010	360600
16	ع	'a	70	9405	658350
17	ف	f	80	8747	699760
18	ص	S	90	2074	186660
19	ق	q	100	7034	703400
20	ر	r	200	12403	2480600
21	ش	sh	300	2124	637200

22	ت	t	400	10520	4208000
23	ث	th	500	1414	707000
24	خ	kh	600	2497	1498200
25	ذ	th	700	4932	3452400
26	ض	D	800	1686	1348800
27	ظ	DH	900	853	767700
28	غ	gh	1000	1221	1221000
		Total	5995	322604	23378278

Table 4: Total number of letters, words and Abjad value of the whole Quran: the three divine components

Component	Number of Letters	Number of Words	Abjad Value (AV)
The Quran (6236 Verses)	322604	86967	23378278
The 112 un-numbered Basmalahs^	2128 (19×112)	448(4×112)	88032 (786×112)
Names of chapters (Surahs)	652	115	40234
Total	325384	87530	23506544

Note: ^ Each Basmalah consists of 4 words and 19 letters with a total Abjad value of 786.

4. Theory

4.1 Quran constant

This study recognizes the importance of the numerical value that represents mathematically the combination of both the textual content and the organizational structure/arrangement of the Quran. This numerical value will be referred to in the current study as Quran Constant (QC). Indisputably, this constant should not permit any change in the text (omissions or additions) or change in the physical structure of the Quran (moving verses from chapter to another or deleting a verse or adding a verse). Indeed, this constant (QC) provides a protection mechanism against any attempt to change the text or the organizational structure of the Quran. The Quran Constant will instantaneously expose any slight distortion of the Quran's text or physical structure/arrangement. Overall, the Quran Constant can be considered as the numerical value that represents the mathematical design of the Quran from both textual and organizational structure perspective.

Mathematically, the total Abjad value (AV) of the whole Quran (the Quran consists of 325384 letters with total Abjad value equals 23506544) can be used to represent the textual content of the whole Quran (see Table 4). Definitely, any change to the text of the Quran will be directly reflected upon the total Abjad value, especially additions or omissions or textual distortion. It is apparent that the total Abjad value of the Quran can be perceived as being the value that controls the text in the Quran, this implies that any distortion to the text will force the total Abjad value to change. Therefore, the first value to be considered in determining the Quran Constant is logically the total Abjad value of the Quran (AV=23506544).

The second numerical value must have the mathematical properties that control the organizational structure of the Quran. Definitely, the structural design of the Quran is basically related to chapters and verses and how verses are distributed among different chapters, each chapter has certain number of verses ranging from 3 to 286 verses. The distribution of verses among chapters has been historically confirmed to be a divine institution (Haleem, 2005). The chapter/verse distribution is an important criterion to gauge the way the Quran is structurally organized into chapters. The one and the only numerical value which can be potentially a candidate to play the role of preserving the structure/arrangement of the Quran is the cumulative sum of verse numbers (333667) (Table 2). Definitely, this numerical value governs the organizational structure of the Quran, whereby it does not permit any movement of any verse from chapter to another or adding or deleting a verse. Thus, this important number acts as a protection mechanism against any attempt to tamper with the physical structure/arrangement of the Quran.

Up to now, this number (333667) has not been given its due in all studies conducted in relation to the numerology of the Quran. However, this number, 333667, will be the cornerstone of this study since its value has a direct influence on the organizational structure/arrangement of the Quran. Surprisingly, this number has many unique attributes and characteristics that make it one of the most important, if not, THE most important six-digit prime number. As far as the Quran is concerned, the sum of its digits (3+3+3+6+6+7) equals 28 (which is the total number of Arabic alphabets) and this number (28) plays an important role in the forthcoming analysis of current study. Further, if we multiply each digit of this prime number with the next digit and add the results ($3\times3+3\times3+3\times6+6\times6+6\times7$), it gives 114 and this equals the total number of the Quran chapters. Furthermore, this 6-digit prime number has many interesting mathematical properties that distinguish it from all 6-digit prime numbers. First, 333667 prime factor is the largest prime factor of the palindrome 123456789876543 21. Second, the greatest prime factor of 9-digit repdigit is 333667. Third, when any 3-digit number is multiplied by 333667 and 3, the result will always be the same 3-digit number replicated 3 times. For example, 111x333667x3=111111111. Truly, it can never be a mere coincidence that the sum of the Quran verses numbers equals 333667 because this unique six-digit prime number is unlikely to be used in the design of the Quran through human involvement at the time when the Quran was revealed 1400 years ago. Definitely, today's numbering systems didn't exist at the time of the revelation of the Quran and obviously no human at that time may have appreciated the unique and interesting mathematical properties of this prime number (333667). Therefore, it must be a divine power supernaturally designed the Quran in such a way that the total sum of the Quran verses numbers equals 333667.

The Quran Constant (QC) can be considered as the numerical value that exposes any slight distortion or change in the Quran's text and/or its structure/arrangement. Since Almighty God promised to protect the Quran from both textual and structural distortions so the Quran Constant can be the mathematical measure to achieve that protection. Thus, to serve this objective, the Quran Constant will be derived by dividing the total Abjad value of the Quran (23506544) with the cumulative sum of verse numbers in the Quran (333667). We write

$$\text{Quran Constant}(QC) = \frac{23506544}{333667} = 70.44911244. \quad (1)$$

QC is a measure of Abjad value per each value of the cumulative sum of verse numbers. Thus, one can say that the Quran was mathematically coded and structured based on the numerical value of the Quran Constant. Therefore, the Quran Constant is a measure of mathematical design of the Quranic contents. This implies that when the Quran was revealed 1400 years ago, Almighty God designed and constructed the Holy Quran in such a way that each value of the cumulative sum of verse numbers holds a value of 70.44911244 of Abjad value. Further, the current theory recognizes that since the Quran Constant numerically resembles the way Quran was mathematically designed, structured and configured. Consequently, the Quran Constant must have the keys to unlock the secrets of the Quran, such as unleashing numerically the Quran statistics (words, verses and chapters) and revealing the Quran's numerical connection with the golden ratio.

4.2 Quranic golden ratio

The golden ratio (Φ) is mathematically simple and usually approximated to 1.618. There are many interesting mathematical properties that have been attributed to the golden ratio which make it unique among all numbers (Kak, 2009). The golden ratio has pervasively manifested in the design and construction of many living and non-living objects in nature. Indeed, the golden ratio possesses the mathematical properties and characteristics that numerous natural objects and phenomena seem to follow. Many scientists have called the golden ratio as God's fingerprint which shows up all over in nature (Livio, 2008; Zonnefeld, 2015). In nature, any product design based on golden ratio seems to be naturally connected with a Creator - the Master Engineer. Categorically, this divine ratio is a naturally occurring mathematical principle. Many believe that the golden ratio is a fundamental characteristic of the universe (Hejazi, 2004; Livio, 2008; Kak, 2009). Because of the golden ratio's unique mathematical properties, all

divine scriptures have been extensively subjected to varying degrees of numerical analysis to associate them in a way or another to the golden ratio in order to prove their divinity, credibility and divine authorship (Man, 2002). In fact, the golden ratio has been reported to have an interesting theological trajectory. As far as I am aware, as yet, no research findings have been reported to have linked any of the divine scriptures to the golden ratio.

One of the main intentions of this study is to demonstrate if there is any numerical connection between the Quran and the golden ratio. Indeed, it has been proved beyond doubt that many living and non-living objects follow the mathematical rules and properties of the golden ratio. Definitely, if the Quran was crafted by Almighty God it is most likely that there exists a connection between the Quran and the golden ratio. The current study proposes that if there is a basis for a supernatural intelligent design in the Quran then logically the golden ratio may have been the primary foundation for its overall design.

The current study has already computed an index called the Quran Constant (QC) that governs the aspects of textual content and physical structural design of the Quran. Thus, it is mathematically demonstrable to suggest that this numerical index symbolizes the mathematical design of the Quran. In other words, the Quran has been transformed into an index called the Quran Constant (QC=70.44911244) that can be used to guarantee the preservation of both the text and the structure/arrangement of the Quran. Consequently, this index will be carried forward in this study for further analysis. Furthermore, it is known that the Noble Quran has various important numerals that constitute its structure and design. The most highly visible among Muslims is the total number of chapters, whereby the Quran is comprised of 114 chapters of varying lengths ranging from 3 to 286 verses and each verse varies in length from two letters to a full page. In other words, the text of the Quran is physically organized in 114 chapters and was performed through divine total involvement according to multiple references (Yauri et al., 2012; Almujalli, 2014; Aboul-Enein, 2016). Therefore, an important question to be asked, is there any quantitative connection between the Quran Constant (70.44911244) and the total number of chapters (114)? We write

$$\frac{114}{\mathrm{QC}} = \frac{114}{70.44911244} = 1.618189301. \qquad (2)$$

It is remarkably interesting that the ratio of the total number of chapters of the Quran (114) which represents the physical design of the Quran and the Quran Constant (70.44911244) which represents the mathematical design of the Quran is extremely in close agreement with the ideal golden ratio (1.6180339887) and the ideal/calculated ratio is within 99.99%. Highly accurate evaluation of the golden ratio in the Quran and other Holy Books has never been achieved before, even though, many different studies of varying methodologies, approaches and techniques have been implemented on all monotheistic scriptures (Man, 2002). Definitely, this remarkable result is extraordinarily compelling evidence that provides a clear support for the divine authorship of the Quran. More importantly, this study has its own unique peculiarity in comparison with other studies since it has incorporated all textual content of the Quran, including the 112 un-numbered Basmalahs and the names of Quran chapters. Therefore, the calculated golden ratio in this study revealing a strong connection with the whole textual content of the Quran, unlike most previous studies and analysis which have focused primarily on a small subset of the Quran (Akhtaruzzaman and Shafie, 2011).

Undoubtedly, this important result comprehensively proves that the Quran is structured in a way that it follows the golden ratio pattern and therefore according to a superhuman intelligent design. The presence of the golden ratio in the design and structuring of the Quran implies that there must be a Creator for this Holy Book (Livio, 2008). Indeed, without any reasonable doubt, this mathematical phenomenon cannot happen by sheer coincidence or chance because the probability of having this great mathematical phenomenon in the design of the Quran is almost infinitesimal. In conclusion, the numerical evidence provides by this study is so thoroughly convincing and conclusive to the effect that anyone can unequivocally believe that the Quranic design and development must be meticulously inspired and conducted by superhuman power of Almighty God.

4.3 Words total in the Quran

The development of a mathematical relationship or an algorithmic equation to determine the total number of words in a human authored book is so overwhelmingly impossible task. In fact, it is absolutely unattainable to link numerically the relationship between the total number of letters and the total number words in a human designed book. Such scenario could only be achievable if supernatural intelligent design has been responsible for authoring the book. The big question: does the Quran have an embedded mathematical formula that leads to the knowledge of the ratio of the total number of letters and the total number of words?

To answer this, we need to compute a numerical value that represents one of the mathematical characteristics of the Abjad numerals. As far as I am aware, no one has yet used this mathematical property of the Abjad numerals in the numerology of the Quran. The importance of this numerical value has clearly manifested in the current study because this study has observed that Almighty God embeds a unique mathematical relationship between this numerical value and the Quran Constant that will surprisingly lead to the ratio of the total number of letters and the total number of words of the Quran with extremely high accuracy. This numerical value is given the symbol, π_A. In the Abjad numerals system the 28 Arabic alphabets are assigned values from 1,2,3,… to 7,8,9, then 10,20,30,….to 70,80,90, then 100,200,300…..to 1000) (Table 1). We define π_A mathematically as follows

$$\pi_A = \sum_{n=1}^{28} \frac{1}{AV(n)}, \tag{3}$$

where AV(n) is the Abjad value of the nth alphabet (Table 1). Thus

$$\pi_A = \sum_{n=1}^{28} \frac{1}{AV(n)} = (\frac{1}{1}+\frac{1}{2}+\frac{1}{3}+\ldots+\frac{1}{9}+\frac{1}{10}+\frac{1}{20}+\ldots+\frac{1}{90}+\frac{1}{100}+\frac{1}{200}+\ldots\frac{1}{900}+\frac{1}{1000}). \tag{4}$$

Therefore

$$\pi_A = \frac{263857}{84000} \approx 3.1411547619. \tag{5}$$

This numerical value is a property of the Abjad numerals and constant for any textual book written in Arabic language whether it is a divine scripture or human authored book. Surprisingly, the sum of the first 28 digits of π_A (π_A=3.141154761904761904761904761) is equal to 114, the total sum of the Quran's chapters.

We recall that the Quran Constant (QC) has been computed and is directly proportional to the Abjad value of the Quran. However, π_A was calculated and it is inversely proportional to the Abjad value. Therefore, generally we expect that there is an exponential relationship between the two numerical values: QC and π_A, (Figure 3), such as

$$QC \propto \frac{1}{\pi_A}, \tag{6}$$

or

$$QC = \pi_A^{q_{LW}}, \tag{7}$$

where q_{LW} is an exponential proportionality constant. By taking the natural algorithm of both sides of equation and substitute for QC and π_A, we get

$$q_{LW} = \frac{\log_e(QC)}{\log_e(\pi_A)} = \frac{\log_e(70.44911244)}{\log_e(3.1411547619)} = 3.717391219. \quad (8)$$

Remarkably, the result (q_{LW} =3.717391219) obtained is almost practically identical to the actual ratio of the total number of letters divided by the total number of words (letters/word ratio) in the Holy Quran (325384/87530= 3.717399749). Further, according to this result, the total number of words in the Quran can be calculated to give

$$\text{Total number of words} = \frac{\text{Total Quran's letters}}{q_{LW}} = \frac{325384}{3.717391219} = 87530.20085. \quad (9)$$

According to the first drawing of the Quran (the way the Quran was written and documented under the direct guidance and supervision of Prophet Muhammad), the actual total number of words in the Quran is 87530 (Table 4). This is a miraculous correspondence between the theoretical result obtained by the current study and the Quran (the actual/calculated ratio is within 99.9998%). More importantly, the calculation of q_{LW} can be seen largely as a validation criterion of both the total number of letters and the total number of words in the Quran. Definitely, the mathematical formula obtained in this study proves without any reasonable doubt that Almighty God, in a supernatural way, embedded the ratio of the total number of letters and the total number words in a mathematical system that governs the structural design and composition of the Quran. Definitely, this amazing mathematically-based invisible, unobservable phenomenon in the Quran as manifested by the numerical determination of the total number of words provides an overwhelming tangible, brilliant and convincing proof of its authenticity and divine revelation. Certainly, there can be no natural or earthly explanation of this mathematical phenomenon.

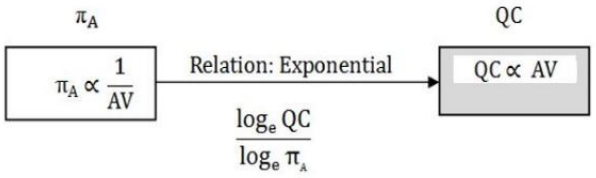

Figure 3: Letter/word relation

4.4 Verses total in the Quran

It is never an easy task to provide the theoretical means to evaluate the total number of verses in the Quran because how words of the Quran are distributed among verses can never be known or predicted mathematically. In fact, some verses are two letters words and some between one-half and one full-page. However, this type of analysis could be practically possible if Almighty God has embedded some mathematical structure that lends itself to simplify the computation.

For the calculation of the total number of verses in the Quran and in accordance with how the Quran is mathematically structured, we need to derive another important mathematical properties of the Abjad numerals, whereby the current study has noticed that such value together with the Quran Constant (QC) will numerically simplify the mathematical calculation of the ratio of total number of verses divided by the total number of letters through a hierarchical mathematical structure corresponds with the chain of verse-word-letter system. This numerical value (q_V) is defined as

$$q_V = \sum_{n=1}^{28} AV(n), \quad (10)$$

where AV(n) is the Abjad value of the n^{th} alphabet (Table 1). Therefore

$$q_V = \sum_{n=1}^{28} AV(n) = (1+2+3+...9+10+20+...+90+100+200+...900+1000) = 5995. \quad (11)$$

Again, this numerical value (q_V =5995) is constant whether the text under investigation is of divine nature or human-authored nature. If we add up the four digits (5+9+9+5), it surprisingly gives 28. The hierarchical mathematical structure of the chain of verse-word-letter system plays an important role in determining the total number of verses in the Quran. In fact, we need to develop two relationships to compute the total number of verses through the chain of verse-word-letter system because verses are composed of words and words are composed of letters. The interrelation between the two values (QC and q_V) can be utilized in accordance with how Almighty God structures the relationships between them to evaluate the total number of verses of the Quran. In the current theoretical study, we need to realize that the heart of all calculations is the Quran Constant. Indeed, in accordance with how Almighty God embeds the mathematical structure in the Quran's composition, the mathematical relationships between verses, words and letters can be grouped in two (see Figure 4):

(1) The first relationship (r1) between q_V and QC, the relationship between them is linear because each of them was defined and derived based on direct proportionality with the Abjad value.

(2) The second relationship (r2) consists of two links: the first link between q_V and π_A, and this link is exponential because π_A was defined and derived based on inverse proportionality with the Abjad value (AV). The second link is between π_A, and QC, and this link has already been investigated in the previous section and it is an exponential one. Apparently, in accordance with how Almighty God embeds the mathematical structure in the Quran, the two relationships are interrelated with verse per letters ratio in the following manner:

$$q_{VL} = r_1 \times r_2, \tag{12}$$

where q_{VL} is the ratio between the total number of verses divided by the total number of letters. In order to comply with how Quran has been mathematically structured, we need to take the natural algorithm of both sides of equation (12), so we get

$$\log_e(q_{VL}) = \log_e(r_1) + \log_e(r_2). \tag{13}$$

Therefore, as discussed above (Figure 4) we substitute in equation (13) for $\log_e(r_1)$ by $\log_e(QC/q_V)$ and for $\log_e(r_2)$ (this relation consists of two links and its numerical value is equal to the multiplied values of both links and this complies with the way the Quran mathematically structured) (see Figure 4) by

$$\frac{\log_e(\pi_A)}{\log_e(q_v)} * \frac{\log_e(QC)}{\log_e(\pi_A)} = \frac{\log_e(QC)}{\log_e(q_v)}.$$

We have

$$\log_e(q_{VL}) = \log_e\left(\frac{QC}{q_v}\right) + \frac{\log_e(QC)}{\log_e(q_v)}. \tag{14}$$

We substitute for QC and q_V in equation (14), we obtain

$$\log_e(q_{VL}) = \log_e\left(\frac{70.44911244}{5995}\right) + \frac{\log_e(70.44911244)}{\log_e(5995)}$$

$$= -4.443790428 + 0.489142044. \tag{15}$$

Thus

$$\log_e(q_{VL}) = -3.954648384. \tag{16}$$

Consequently

$$q_{VL} = 0.019165406 \text{ Verse/letters}. \tag{17}$$

Therefore

$$\text{Total number of verses} = 325384 \times 0.019165406 = 6236.116466. \qquad (18)$$

The actual total number of verses in the Quran= 6236 (Table 2). The amazing correspondence between the calculated numerical value and the actual value (the actual/calculated ratio is within 99.998%) provides concrete evidence that the Quran is a definitive divine revelation. Indeed, the elegant relationship in equation (14) embedded by Almighty God, the Master Engineer, is straightforward and yet there is no earthly explanation of how different parameters in the Quran and the mathematical properties Abjad numeral system are structured and arranged to achieve this remarkable mathematical phenomenon.

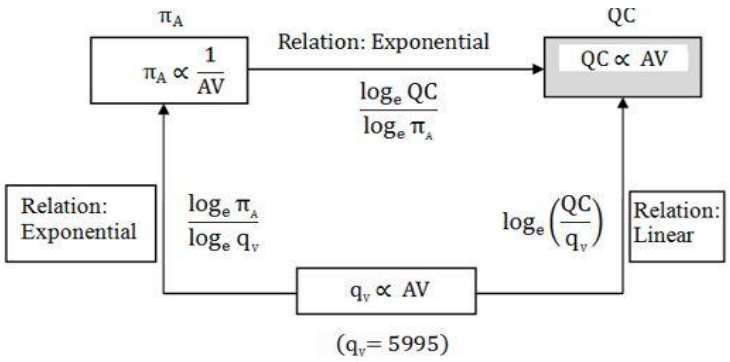

Figure 4: Verse/letters relations

4.5 Chapters total in the Quran

Any attempt to compute the total number of chapters in the Quran is undoubtedly extremely challenging and unachievable task. Apparently, how the Quran was organized into chapters is simply mysterious to humans. There is no trace of any kind of how verses were distributed among the 114 chapters and these are varying in length from 3 to 286 verses. Any successful effort to evaluate the total number of chapters in the Quran must be implemented through mathematical structure that divinely embedded in the Quran's composition. The current study will expose the secret and unlock the mathematical knowledge necessary to derive the equation from which the total number of the chapters can be simplistically determined.

The normal chain of the Quran consists of chapter-verse-word-letter. However, the current study has observed that the mathematical structure embedded in the Quran only provides tracking of three parameters (chapter-verse-word). The interrelated relationships between these three parameters (chapter, verse and word) will be analyzed for the purpose of determining the equation for the ratio of words per chapter.

To achieve this objective, we need first to determine a numerical value that plays a central role in the forthcoming numerical analysis. This numerical value (q_C) will be used in the current study together with QC, and q_V to derive the equation needed to determine the ratio of words per chapter in the Quran. The definition of q_C mathematically will be as follows

$$q_C = \sum_{n=1}^{28} \left[\frac{1}{AV(n)} \times AV(n) \right]. \qquad (19)$$

It is clear that the two expressions inside the square bracket in equation (19) are similar to those defined for π_A and q_V (See equations (3) and (10)). On simplification of equation (19), we have

$$q_C = \sum_{n=1}^{28} [1] = [1+1+1+\ldots+1+1+1] = 28. \qquad (20)$$

This is very interesting numerical value and it represents the total number of Arabic alphabets which is the same as the total number of digits the Abjad numeral system consists of. Thus, q_C is a constant value and a characteristic of the Abjad numerals whether the text is divine-based or human-based. The mathematical relationships between chapters, verses and words can be grouped in two as set by the divinely embedded mathematical structure of the Quran (see Figure 5, no link between q_V and QC exists in this figure because there is no connective relationship between words and letters in the process of calculating the total number of chapters):

(1) The first relationship (r3) between q_C and q_V the relationship is linear because q_V was defined and derived based on direct proportionality with the Abjad value (AV) and q_C is a constant value.

(2) The second relationship (r4) consists of two links: the first link between q_C and π_A, and this link is exponential one because π_A was defined and derived based on inverse proportionality with the Abjad value. The second link is between π_A and QC, and this link has already been investigated and it is an exponential one. Actually, with regard to how Almighty God embeds the mathematical structure in the Noble Quran, both relationships (r3 and r4) are interrelated with words per chapter ratio as follows

$$q_{WC} = r_3 \times r_4, \tag{21}$$

where q_{WC} is words per chapter. Similar to the above, we take the natural algorithm of both sides of equation (22), thus we have

$$\log_e(q_{WC}) = \log_e(r_3) + \log_e(r_4). \tag{22}$$

Consequently, as discussed above (Figure 5) we substitute in equation (22) for $\log_e(r_3)$ by $\log_e(q_V/q_C)$ and $\log_e(r_4)$ (this relation consists of two links and its numerical value equals the multiplied values of both links and this agrees with the way the Quran is mathematically structured) (see Figure 5) by

$$\frac{\log_e(\pi_A)}{\log_e(q_C)} * \frac{\log_e(QC)}{\log_e(\pi_A)} = \frac{\log_e(QC)}{\log_e(q_C)}.$$

We have

$$\log_e(q_{WC}) = \log_e\left(\frac{q_V}{q_C}\right) + \frac{\log_e(QC)}{\log_e(q_C)}. \tag{23}$$

We substitute for the values of q_V, q_C and QC in equation (23), we get

$$\log_e(q_{WC}) = \log_e\left(\frac{5995}{28}\right) + \frac{\log_e(70.44911244)}{\log_e(28)}$$
$$= 5.366476557 + 1.27689961 = 6.643376167. \tag{24}$$

Therefore

$$q_{WC} = 767.6824469 \ \text{Words per chapter}. \tag{25}$$

However, it is more appropriate to calculate letters per chapter (q_{LC}) because this theory has been developed primarily around Quran's letters (however, the difference in calculating the total number of chapters in the Quran whether we use words per chapter or letters per chapter are too small to be significant). We write (letters/chapter=letters/word*words/chapter)

$$q_{LC} = q_{LW} * q_{WC}, \tag{26}$$

where q_{LC} is letters per chapter and q_{LW} (= 3.717391219) is letters per word (see subsection 4.3).

On substitution for q_{LW} and q_{WC} in equation (26), we have

$$q_{LC} = 3.717391219 * 767.6824469 = 2853.7759871 \text{ Letters per chapter.} \quad (27)$$

Consequently

$$\text{Total number of chapters in the Quran} = \frac{\text{Total Quran letters}}{\text{Letters per chapter}}$$

$$= \frac{325384}{2853.7759871} = 114.01876. \quad (28)$$

However, the Quran is physically organized in 114 chapters (Surahs). This study provides a theoretical value of the total number of chapters (=114.01876). This incredible agreement between the theoretical result of this theory and the actual value (the actual/calculated ratio is within 99.984%) proves that Quran is mathematically designed and structured far beyond human capability and comprehension. The truth of the matter is that no human element will have the capacity to even come close to realize how the Quran is organized in 114 chapters in order to make this powerful mathematically-based phenomenon a reality. In conclusion, this mathematically-based theory is probably the most solidly concrete, thoroughly convincing, absolutely conclusive, extraordinarily impeccable and theoretically provable discovery of all time that provides an overwhelmingly clear manifestation of God's revelation of the Quran.

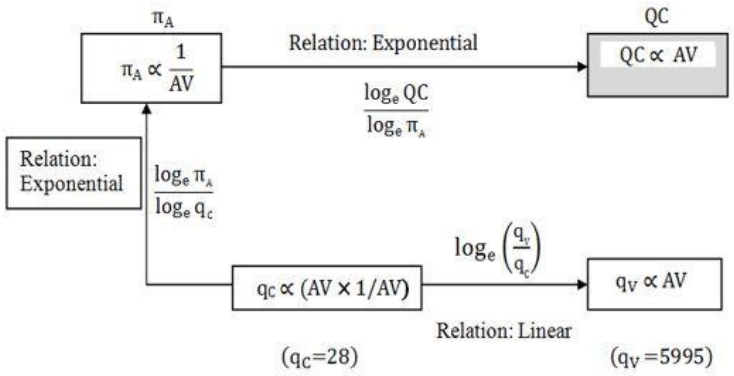

Figure 5: Words/chapter relations

5. Contributions and concluding remarks

One of the most prominent features of this theory that it is totally based on text delivered to Prophet Muhammad and drawn using the primary 28 alphabets of the Arabic language which consists of 6236 verses and physically organized in 114 chapters (Uthmanic manuscript). A letter is counted if it is physically written (similar to English language) and this precisely corresponds to the first drawing of the Quran.

A key contribution of this work is the determination of the Quran Constant (70.44911244) which represents the mathematical design of the Quran. This numerical value can be used for preserving the Quran from any distortion and alteration. The Quran Constant has proved to be of vital importance for the determination of many important numerical features in the Quran such as the total number of Quran's primary Quran statistics (words, verses and chapters). This is the first study to prove beyond any reasonable doubt that the mathematical design of the Quran is predominantly based on the golden ratio. Indeed, this theory has definitely revealed that the Quran's mathematical composition follows the golden ratio principles. Indeed, the present finding provides clear evidence of supernatural intelligence in the design of the Quran.

One of the most seminal contributions of this theory is the determination of the Quran primary parameters. This theory has revealed that the Quran was mathematically-structured through divinely embedded design based on the Abjad numerical system, and as a result elegant equations have been derived for calculating the Quran basic statistics (words, verses and chapters) with extremely high accuracy. More significantly, the ratio between the total number of letters divided by the total number of words (q_{LW} =3.717391219) determined in this study can be practically seen as a validation criterion of both the total number of letters and the total number of words in the Quran. What has been achieved

regarding the primary Quran statistics in this study is in itself a remarkable contribution, and this provides overarching evidence that the Quran is inimitable and a supernatural force beyond human capability has been involved in its design, institution and authorship.

Based on the findings of the current theory, it has been mathematically supported that the Quran as a divine entity is composed textually of three components: the Quran that consists of 6236 verses (114 chapters), the 112 un-numbered Basmalahs and the names of the 114 chapters. Indeed, this is the first study to acknowledge theoretically and mathematically that the 112 un-numbered Basmalahs and the names of the Quran's chapters are divinely inspired. This is by itself a notable contribution.

This is the first study to have discovered that the Quran was structured and organized according to Abjad numerals. This implies that the Quran has been mathematically coded via Abjad numerals, which is in itself a great contribution in its own right. This proves beyond doubt that the Quran was divinely inspired. To the best of my knowledge this is the first study to prove theoretically that the gematrical numeral systems is the mathematical language that governs the structure and design of a monotheistic book like the Quran. What does this mean? For one thing, it means that we are witnessing a mathematical-based phenomenon of earth shattering proportions. Also, this proves that Abjad numerals are valid numerological decimal systems. Thus, Abjad numerals cannot be thought of any more as borne out of a mere randomness or chance. Indeed, I would like to go further by stating that gematrical-based systems are most likely to be divinely-inspired. Given the nature of the results of the current study, one can categorically recognize that the Quran is perfectly protected and preserved from all forms of changes and alterations. This implies that the Quran has never undergone any type of distortion or loss or any corruption or alteration or tampering from the day it was revealed some 1400 years ago. Therefore, this theory has authenticated the first drawing of the Quran and proved the credibility of the Uthmanic manuscript which is identical to the original revealed text. Indisputably, the divine authorship and authenticity of the Quran have been theoretically established and confirmed.

Finally, the outcomes of this theory genuinely provide further evidence to substantiate and consolidate that Muhammad is a true Messenger of God.

6. Implications

Indeed, beyond any doubt, this study has brought about a new research direction and new research thinking in numerological studies of the Quran. As a result, a new door is now open for new research venues and new insights in the science and frontiers of Quran numerology. Apparently, it is expected that scientists and researchers will carry out more extensive research on the Quran using Abjad numerals. Indeed, these areas of research have been misjudged and misinterpreted before because of the negative attitudes of few leading researchers in the field who have been always pushing research away from using the concept of gematria in the science of the Quran numerology. This is because, according to them, no one has yet achieved any significant outcome in that regard. In addition, the current theory could prove potentially useful for revealing new mathematical trends, patterns and structures in the Quran that will genuinely provide further proof to authenticate and substantiate the fact that the message of the Quran is divinely protected and brilliantly codified beyond human capability (study in preparation).

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