Application of Gunning Method to Analyze Communication Efficiency
of Thai Technology Startup Companies via Mission Statement

Watcharee Ariyamang[1] Thikamporn Thaweedech[1*]

[1]International College, Rajamangala University of Technology Krungthep

E-mail: Thikamporn.t@mail.rmutk.ac.th

Abstract

A mission statement is an important tool for effective communication between business organizations and their stakeholders. Communication effectiveness depends on characteristics of the mission statement, such as the number of sentences, the number of words used to convey the message, and its readability. The research question is: Do the mission statements of Thai technology startup companies demonstrate effective communication? Accordingly, this study aims to: (1) survey the number of sentences and words to measure the communication effectiveness of mission statements, and (2) examine readability levels to assess their communication effectiveness. Gunning's approach was applied to mission statements from eighteen Thai technology startup companies listed on the Stock Exchange of Thailand. Counting techniques were used in the analysis, along with frequency, percentage, mean, standard deviation, and the Fox Index.

The results revealed that: (1) the mission statements of Thai companies were effective in communication, with an average of 3.28 sentences and 72.28 words, which met the specified criteria; and (2) the average readability level was 11.62, indicating an acceptable level. This suggests that the mission statements of most Thai companies are effective in communication, with only two companies having readability at a difficult level. Therefore, to improve efficiency in communication between companies and stakeholders, organizations should periodically review and refine the writing of their mission statements.

Keywords: Mission Statement, Readability, Communication, Gunning Method, Fox Index

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[*] Corresponding Author

Introduction

When talking about a Mission Statement, many people think of it as a tool used to connect the vision and business operations, but in reality, it also serves another important function: communication between an organization and its stakeholders. (Cochran, David, & Gibson, 2008; Powers, 2012; Rajaseka, 2013; Khan, Ahmed, & Islam, 2017). A mission statement communicates the objectives and purpose of a business's existence (Ahmed, Farooq, & Khan, 2021). The organization hopes to receive support from stakeholders, such as employees who are dedicated to their work, investors who are willing to invest money, communities not opposing business operations, customers believing in the product, promotion and support from the government sector, etc. (Pitt, Sattari, & Bevelander, 2010; Sattari, Pitt, & Caruana, 2011; Khan et al., 2017). Therefore, mission statements must be effective in communication. If stakeholders can't read and understand, how will support for business organizations occur? Especially Startups and Innovation Driven Enterprises: IDEs, which are expected by the Thai government to be business groups with the potential for exponential and sustainable growth (Scale-Up) to become a New Growth Engine driven by a fully innovative economy to become a developed country within fifteen years and escape the middle-income trap. (Natcha Thawesaengskulthai et al., 2021). So, for a mission statement to communicate effectively, it is the responsibility of the management to review and develop the mission statement.

According to strategic management theory, successful companies' mission statements that are effectively communicated consist of a small number of words and sentences. (Palo Alto Software, 2011 as cited in Powers, 2012; Bansal, 2013; David & David, 2015; Sadowski, Tippett, & Meunier, 2022). And it has easy-to-understand readability. (Cortés-Sánchez & Rivera, 2019; Sattari et al., 2011; Blanco, Coram, Dhole, & Kent. 2021). As an example, the characteristics of mission statements of successful companies are shown in Table 1.

Table 1 Characteristics of mission statement

Corporate	Number of Sentences	Word count	Hard Word count	%Hard Word	Readability level
Google	1	15	3	0.03	Very easy to read
IBM	2	31	6	0.06	Very easy to read
Apple	1	14	3	0.03	Very easy to read
The X	1	15	2	0.02	Very easy to read
Microsoft	1	13	2	0.02	Very easy to read

Sources: Researcher's Calculations

From the table, it can be seen that the characteristic of an effective mission statement in communication is the number of sentences. The number of words is not very difficult, and the readability level is easy to read. Since the science of strategy has been applied in Thailand, both the government and business sectors believe that it is an effective management tool because Western nations have seen success from using this approach. To prove whether these principles are successful when applied in the Thai environment, the survey found that they are mostly applied in the marketing and human resource management dimensions. In other dimensions, there are few or none at all.

Currently, no evidence has been found to show whether the mission statements of Thai technology startup companies are effective in communicating or not. If companies do not know. They will lose a lot of business opportunities because the technology industry is in the investment expansion and growth period (Techsauce Team, 2021). If companies know, it would be able to develop a mission statement to communicate to investors, lenders, customers, employees, communities, government, etc. Stakeholders will understand the intention of the business and support and cooperation, which will be beneficial to the business in the long run. The lack of knowledge about the effectiveness of communication of Thai companies' mission statements, the researcher sees this as a research gap. The researchers will study and hope that the results of this research will be beneficial to Thai companies, various agencies and individuals who wish to use this information for relevant purposes. In this study, the researcher will seek answers to the following research questions: Does the mission state of the Thai technology startup companies have effective communication? Find the answer by applying the concept of David and David (2015), a mission statement should be less than two hundred and fifty words in length, and It's should only be three or four sentences. By applying the concept of Gunning (1952 as cited in Dubay, 2004). The Fog Index measures the readability of mission statements. Therefore, this research aims to:

1. Survey the number of sentences and words to measure the communication effectiveness of a mission statement.

2. Survey Readability Levels to measure the communication effectiveness of a mission statement.

Literature Review

1.Mission statement characters:

David and David (2015), said that "A mission statement is the foundation for priorities, strategies, plans, and work assignments. It is the starting point for the design of jobs and organizational structures." and Mission statements are also used as important documents in communicating with stakeholders (Khan et al., 2017). Therefore, to be effective, mission statements should be tailored to a variety of target groups. And avoid using highly technical terms and unfamiliar words (Drohan,1999 as cited in Godkin, Valentine, Boler, & Lambert, 2000). Campbell, et al (1993 as cited in Hossain, 2004) suggested that a mission should have four components such as Purpose (Why the company exists?); Strategy (The competitive position and distinctive competence); Standards and Behaviors (The policies and behavior patterns that underpin the distinctive competence and the value system) and Values (What the company believes in). Mission statement must be free of financial expression, numbers, percentages, ratios or objectives (David et al., 2014 as cited in Alawneh, 2015). David (2011) suggested that a mission statement should have nine components such as Customers; Products or services; Markets; Technology; Concern for survival growth and profitability; Philosophy; Self-concept; Concern for public image; Concern for employees. Bratianu and Balanescu (2008) said a good mission statement should have the following general characteristics: To reflect on the existential plane the vision of the company; To incorporate the core corporate values; To be feasible, understandable and concise; To be generous in stating the company goals; To have a semantic impact on all stakeholders; To have a good literary formulation. Bansal (2013) said an effective mission statement should be Simple, be Specific, be Realistic, Strategic Positioning, Relevant to Stakeholders, Long Term Orientation.

From the above, there are many opinions regarding the nature of mission statements. However, the use of mission statements to communicate needs to take into account the efficiency of information transmission, which is the length of the mission statements. The length of sentence is an important linguistic variable that affect the readability (Kunnur, 2020). There is no particular length or format of a mission statement. It differs from organization to organization (Hossain, 2004). Many experts believe that mission statements which are eight words or less are easy to remember and are effective (Bansal, 2013). Djordjevic (2021) said an effective mission statement should not be too lengthy; recommended length is less than two hundred and fifty words (David & David, 2015). While Sadowski et al. (2022) said that word count is a key characteristic of mission statements. Recommended word lengths have ranged from no more than eight words to 250 words. And it should only be three or four sentences (Palo Alto Software, 2011 as cited in Powers, 2012). Knierim (2023) said that most mission statements are between one and three sentences, never exceeding 100 words. The best mission

statements are typically a single succinct sentence. Görl-Rottstädt, Andrä and Arnold (2023) said that A mission statement should not be too long for the reasons of readability, and it should be well structured. Wylie 's study (2009 as cited in Schaap & González, 2023) shows the following: "• When the average sentence length in a piece was fewer than eight words long, readers understood 100% of the story.

According to research by Sattari et al. (2011) study Product Manufacturers, Service Companies and Retail/Distribution Companies. One hundred and six companies, found that the highest was two hundred and fifty-eight words in Service Companies, the lowest was three words, the highest sentences were ten and lowest was one sentence. Rajasekar (2013) study forty-five companies in Financial Services Sector, Food and Beverage Sector, Industrial Manufacturing Sector, Utilities & Power, Telecom, Investment Sector, Metal, Mining, Oil & Gas Sector, Education, Healthcare, & Transport Sectors. Those successful companies have mission statements that do not follow the recommended minimum of two hundred and fifty words and three or four sentences. The recommendations mentioned are based on the idea that readers interpret meaning by analyzing words and sentences. Long numbers of words and sentences can affect reading comprehension, resulting in reduced understanding, inaccuracy, or misunderstanding of what is being communicated in the mission statement (Klarke, 1963 as cited in Dubay, 2004; Sattari, et al., 2011; Wray & Janan, 2013). Khan et al. (2017) study five hundred mission statement companies from Europe, Asia, North America, Australia, and South America. In four industries were Manufacturing, Retail and Distribution, Service, and Diversified found that Service had the longest Mission statement in term of words, was two hundred and ninety-five words and nine sentences. The reason that why service sector has longest mission statement: firstly, it may possible be influenced by the vast area of activities to cover in terms of service delivery; and secondly, mission statement needs more explanation to make reader understand the message as the array of services may be vast. David (2020) study Characteristics of seventy-four Fortune 500 companies' mission statements, one of characteristics is Concise (fewer than 100 words in length), found that mission statements were effective because they contained about 100 words, which is within the recommended range. These results suggest, in practice mission statements are generally statistically much shorter than theory suggests. New direction for writing mission statements can be updated to be shorter in length than previously thought. Hasnain (2020) studied mission statements, a comparison between the service firms and manufacturing firms. Service firms' mission statements consist of more complex words than the statements of manufacturing firms. The length of the mission statements' sentences of the manufacturing firms was two hundred and ninety words less than service firms was three hundred and thirteen words. Manufacturing firms was twenty sentences. Service firms was twenty-one sentences. Schaap and González (2023) studied twenty-three Public California State Universities, found that highest word counts 109, the sentence was very difficult to read. They suggested that If universities want to write for their readers, they

need to write shorter and simpler sentences. A target to aim for is fifteen - twenty words. That length is usually long enough to get the point across without losing the reader. Sentences of more than twenty-five words are often difficult to understand on a first reading, and even the most seasoned reader will typically struggle to make sense of sentences longer than thirty words.

From the literature review, we summarize that when Stakeholders' understanding of what the company intends to communicate through its mission statement, it's means communicate efficiency. The factor that influences the comprehension or measures the effectiveness of communication are word and sentence. We found that there is a gap between theory and practice. Although the theory recommended effective mission statement should not be too lengthy, in practice we find that it is not always the case that the theory is implemented. We find that no one has studied the effectiveness of the mission statement of Thai technology startups under the guidance of the number of words and sentences that will affect the quality of communication. To fill this gap in the literature, researcher will find the effectiveness of Mission statements by measuring the number of words and sentences. The hypothesis is

(H1): Overall, the mission statement of the Thai Technology startup company has less than two hundred and fifty words and no more than four sentences

2.Readability

Definition of readability: "readability is the sum total of all those elements within a given piece of printed material that affect the success a group of readers have with it. The success is the extent to which they understand it, read it at an optimal speed, and find it interesting." (Dale & Chall, 1949 as cited in Dubay, 2004) Readability as a human judgment of how easy a text is to understand (Oliveira, Bruno, Madeiral, & Castor, 2020). Akgül (2024) said, Readability is an assessment which explains how easy it is to provide content to the reader. Readability is the basis that a reader can easily understand text structures (Ojha, Ismail, & Srinivasan, 2021). Kunnur (2020) said that "in Dictionary of Psychological Terms 'Readability is the quality of a written or printed communication that makes it easy for any given class of persons to understand its meaning, or that induces them to continue reading". Readability means: "how easily written materials can be read and understood. This depends on several factors including the average length of sentences, the number of new words contained, and the grammatical complexity of the language used in a passage" (Richards et al.,1992 as cited in Zamanian & Heydar, 2012). Klare, (1963 as cited in Sattari et al., 2011) said that "Readability is text-centered and refers to the 'ease of reading' that may be attributable to the quality of a document in terms of such characteristics as structure of words and sentences, as well as legibility and layout of the content". Cortés-Sánchez and Rivera

2019; Sattari et al., 2011 said; In business, readability is very important, because it influences how clearly a text can be understood by the reader. The firm hopes that the different stakeholders not only read them, but also understand what the company is trying to communicate. Readability is an important cornerstone in the communication process and its importance has been recognized in many business disciplines. If readability and comprehension are not successful among the target stakeholders then desirable outcomes cannot be achieved (Sattari et al., 2011).

Tools to measure readability have evolved over a long period of time, and a variety of tools have been developed. For example, in 1948 Flesch (as cited in Dubay, 2004) developed tools called the Flesch Reading Ease Score (FRES) and the Flesch-Kincaid Grade Level (FKGL). Dale and Chall (1948 as cited in Dubay, 2004) developed a tool known as The Dale-Chall formula. McLaughlin (1969 as cited in Dubay, 2004) published his SMOG formula and Gunning (1952 as cited in Dubay, 2004) published his own readability formula developed for adults, called the Fog Index (Khan et al., 2017; Pasko, Miata, Rudenko, & Hordiyenko, 2020). The Fog Index has gained widespread use and is now increasingly being used in business administration studies in the areas of strategic management, marketing, finance and accounting. Because of its ease of use (Dubay, 2004; Sattari et al., 2011; Liu, & Rowe, 2013; Bargate, 2012; Hatcher & Colter, 2007 as cited in Rajasekar, 2013; Khan et al., 2017; Cheng, Zhao, Xu, & Gong, 2018). Gibsons (1985 as cited in Sattari et al., 2011) suggest the use of the Gunning Fog Index (GFI) to Readability level measures of mission statement. In general, a Gunning Fog Index has five level such as Unreadable level means the text is unreadable. Difficult level means it is difficult to read, Ideal level means the level is ideal for average readers, Acceptable level means the text is acceptable to read, and Childish level means the level is easy and meant for children (Aymen, Sourour, & Badreddine. 2018; Velte, 2020; Phuong & Huong, 2022; Mankayi, Matenda, & Sibanda, 2023; Rajabalizadeh, 2024). Blanco et al. (2021) said, Communication from managers to investors is very important and low readability reduces the usefulness of annual reports in terms of evaluating firm performance. So, it should not be difficult level and Unreadable Level.

The empirical evidence has provided mixed results. Pitt et al. (2010) studied the mission statements of the FT hundred business by comparing FRES and FKG readability measurement methods, SMOG Index, and GFI Index were found similar values. Overall Gunning Fog Score (GFI) 18.93 S.D. 5.30, the highest score on GFI was 35.10, which means that in rough terms, in order to understand it, an individual would need around 35 years of education. Texts that are designed for a wide audience generally require a Fog index of less than 12, while texts that require a close-to-universal understanding generally require an index of less than 8. Sattari et al. (2011) studied mission statements of forty-three companies in the Product Manufacturers group found that they were unsuccessful in communicating with stakeholders. Her findings indicate that the levels of readability of mission statements particularly among broad-based audiences may be failing significantly. When

mission statements and related corporate communications are not readable by intended stakeholders, transparency is compromised. Rajasekar (2013) evaluate the mission statements of companies working in the financial service, food and beverage, general investment, utilities, and natural resources sectors. Using GFI, the overall average value of the Fog index for financial service firms is 8.435, which represents a good readability level. Firms operating in the food and beverage sectors had an ideal score on the Fog index on average and 10.4. An education level of 7.4 The utilities industry group and the metal, mining, and oil and gas group, average Fog index values of 7.7 and 8.6 each. the investment industry group, with a score of 8.96, revealing a good readability level on average for the mission statements. On the other hand, mission statements for sample companies in industrial manufacturing, healthcare, education, and transport had an exceptionally high readability index exceeding 10.5. This high score implies the need to review and rewrite the mission statements by reducing sentence length and the use of multiple-syllable words. Godoy-Bejarano and Tellez-Falla (2017) estimate the effect from mission statement on firm financial performance in 99 sample of Colombian companies. Readability is measured using the Fog index. Found that Overall, GFI 28.05, the level of readability was Unreadable means that the text is unreadable. Khan et al. (2017) study five hundred mission statement companies from five zones: Europe, Asia, North America, Australia, and South America. And divided into 4 industry groups: Manufacturing, Retail and Distribution, Service, and Diversified. The results showed that the overall picture was not able to read and understand. Asian companies have more readable text than any other continent. While North American companies have the hardest text to read. Hasnain (2020) investigate the readability of the mission statements of the large 5 service and 5 manufacturing firms. Gunning Fog, service firms indicate it is college senior standard (16), while in case of manufacturing, it is college junior (15). Both the cases it, the texts are college standard which means that the text is difficult. Ahmed et al. (2021) using GFI measures. Found that Overall, the level of readability of 9 Islamic financial mission statements were not easy to read and comprehend. Only one bank has GFI=11.4 which means that the text is acceptable to read. Jeon and Cho (2021) to analyzed the differences in the readability, keywords, and orientation of mission statements between the top one hundred Korean and top one hundred US companies, 79 Korean and 66 US innovative companies, 21 Korean and 34 US traditional companies. The GFI tool was used to test the readability of the mission statements of Korean and US companies. There were no significant differences among the samples in terms of mission statement readability. The average GFI for the top companies was 15.3 (US) -15.7(Korean), Difficult level means it is difficult to read. The GFI for traditional companies was 16.2 (Korean) - 16.5(US), Difficult level means it is difficult to read. The GFI for innovative companies was 13.5(Korean) - 12.9 (US), Ideal level means the level is ideal for average readers. Cortes, Rivera, & Carbonelld (2022). Study of mission statements from universities in Europe, North America, Asia, Latin America and Oceania. Two hundred and forty-eight

mission statements. Using the Gunning's Fog Index (GFI). In conclusion, it was found that the level of reading comprehension in the mission statement was average GFI was 20.82 (SD = 11.38), Unreadable level which means that the text is unreadable. Mission statement of one University in Germany has a GFI of 1.2, Very easy level which means that the level is very easy to read. which means that a person below sixth grade in the US education system, would understand it at a first read. Mission statement of one University in North America has a GFI of 142.8, Unreadable level which means that the text is unreadable means that the reader would need a graduate college education to understand it at first read.

From the literature review, we summarize that when Stakeholders' understanding of what the company intends to communicate through its mission statement, it's means communicate efficiency. The factor that influences the comprehension or measures the effectiveness of communication is the readability level. We found that there is a gap between theory and practice. Although the theory requires the writing of the Childish Level-Ideal level, in practice we find that it is not always the case that the theory is implemented. There were readability studies in various companies, and it was found that readability exists at several levels that indicate the effectiveness of mission statements. We find that no one study the technology business mission statement in Thailand. Nobody knows how mission statements are communicating efficiency. To fill this gap in the literature Researchers will measure reading comprehension levels. Therefore, the assumptions are made as follows: Hypothesis

(H2): Overall, the level of mission statement readability of Thai technology companies is an acceptable level to Ideal level.

Research Framework

communication efficiency means Stakeholders' understanding of what the company intends to communicate through its mission statement. Number of words, number of sentences, readability level influences communication efficiency. See Figure 1
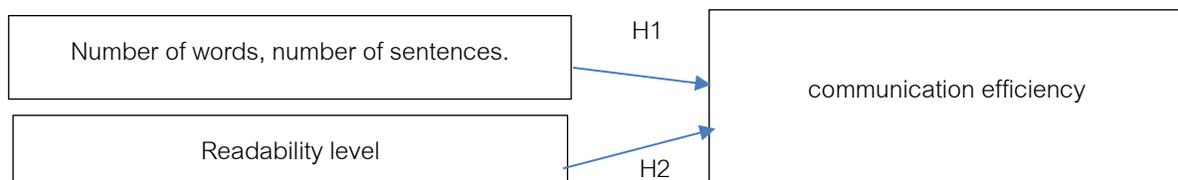

Figure 1 Research framework

Research Hypotheses

The research hypothesis was therefore;

H1: Overall, Mission Statement of Thai technology startup companies has Less than 250 words; no more than 4 sentences.

H2: Overall, the readability level of Thai technology companies is an acceptable Level - Ideal level.

Research Methodology

According to the theory, communication efficiency is discussed when the number of words and sentences is used and the readability level is as prescribed. This study therefore tested whether the Mission Statement of Thai technology startup companies comply with the requirements of the theory by setting two hypotheses and using the following research methods:

Population: Groups of Thai technology startup companies are listed on the Stock Exchange of Thailand and are in the MAI group, which is a source of funding for small and medium-sized businesses with paid-up capital after IPO (Initial Public Offering) of 50 million or more There are twenty-three companies (SET, 2023).

Sample: The criteria for selecting a mission statement is whether the company has a mission statement or not. Does the company display a mission statement on its website or in its reporting documents? It was found that 18 out of 23 companies had mission statements and they were displayed on the company website. Therefore, the population used in this study was 18 companies. The researcher applied the concept of Krejcie & Morgan to calculate the appropriate sample size in case of small population size at the error level of 0.001, 99% confidence level. Use the ME Working Age calculation program (ME Working Age, 2020). The sample size was 17.98. Therefore, this research has a sample size of 18 companies.

Mythology: Data analysis by Content Analysis, statistical analysis as frequency, percentage, mean, standard deviation, readability level analysis by Fox Index, which is widely used to evaluate reports and communication quality (Khan et al., 2017). The Fog index is computed as follows: (Gunning, 1952 as cited in Dubay, 2004; Li, 2008; Kunnur, 2020; Hossain & Banerjee, 2024)

Grade Level = 0.4 x (words per sentence + percent of complex words)

Words per sentence is average sentence length. Length of sentences measured in terms of number of words contained in a sentence. Percent of Complex words or Hard words measured in terms of number of words of more than two syllables for each 100 words. Interpretation of the Fog Index. See Table A (Velte, 2020; Phuong & Huong, 2022; Görl-Rottstädt et al., 2023; Mankayi et al., 2023; Valeeluk Sangsilawutthikul, 2023; Gutiérrez-Ponce, González, & Al-Mohareb, 2023; Rajabalizadeh, 2024)

Table 1 Interpretation of the Fog Index

Fog Index	Rang	Means
18 up	18.00 up to	Unreadable which means that the text is unreadable. The reader would need Post – graduate plus to understand it at first read.
14-18	14.00-17.99	Difficult which means that the text is difficult to read. The reader would need Post-graduate to understand it at first read.
12–14	12.01-13.99	Ideal which means that the level is ideal for average readers. The reader would need a graduate high school senior and college Freshman, Sophomore, College junior to understand it at first read.
10–12	10.00-12.00	Acceptable which means that the text is acceptable to read. The reader would need a graduate high school sophomore and high school junior, senior to understand it at first read.
8–10	8.00-9.99	Childish which means that the level is easy and meant for children. That the reader would need a graduate eight grade and high school freshman to understand it at first read.
Less 8	Less than 8	Very easy to read (Kunnur, 2020) which means that the level is very easy for average readers. That a person below seventh grade in the US education system, would understand it at a first read.

Result

1. The number of sentences and words in the mission statement

The analysis results found that the mission statements of the eighteen sample companies had an average(mean) of 3.28 sentences. The analysis results found that six companies had two sentences, accounting for 33.33 percent, three companies had three sentences, accounting for 16.67 percent, eight companies had four sentences, accounting for 44.44 percent, and one company had six sentences, accounting for 5.56 percent. See Table 2.

Table 2 The number of sentences per mission statement

No.	Corporates	sentences	total	Percent
3	BE8	2		
10	NETBAY	2		
11	PLANET	2		
13	SECURE	2		
17	TPS	2		
18	VCOM	2	6	33.33
1	APP	3		
5	COMAN	3		
8	IIG	3	3	16.67
2	BBIK	4		
4	BVG	4		
6	DITTO	4		
7	ICN	4		
9	IRCP	4		
14	SCT	4		
15	SIMAT	4		
16	SPVI	4	8	44.44
12	PROEN	6	1	5.56

No.	Corporates	sentences	total	Percent
		Mean = 3.28; Sd. = 1.1	18	100

Sources: Researcher's Calculations

        The second issue is the number of words in the mission statement. The analysis results found that the mission statements of the eighteen sample companies had an average(mean) number of words of 72.28. The analysis results found that four companies had less than 50 words in their mission statement, accounting for 22.22 percent, nine companies had between 51-100 words in their mission statement, accounting for 50 percent. five companies had more than 101 words in their mission statement, accounting for 27.78 percent. See Table 3.

Table 3 The number of words per mission statement

Words	No.	Corporates	words	total	Percent
less than 50 words	1	APP	7		
	3	BE8	20		
	10	NETBAY	37		
	11	PLANET	40	4	22.22
between 51-100 words	13	SECURE	51		
	18	VCOM	51		
	17	TPS	52		
	8	IIG	66		
	2	BBIK	72		
	5	COMAN	76		
	12	PROEN	90		
	7	ICN	91		
	15	SIMAT	98	9	50
more than 101 words	14	SCT	102		
	9	IRCP	103		
	16	SPVI	111		
	6	DITTO	115		
	4	BVG	119	5	27.78

Words	No.	Corporates	words	total	Percent
			Mean=72.28; Sd.32.75	18	100

Sources: Researcher's Calculations

From the hypothesis H1: Overall, Mission Statement of Thai technology startup companies Less than 250 words; no more than 4 sentences. The result of the analysis found that the average number of mission statement sentences is 3.28 and the average number of words is 72.28. Therefore, the hypothesis H1 is accepted.

The factor that influences the effectiveness of communication are word and sentence. Communicate efficiency means Stakeholders' understanding of what the company intends to communicate through its mission statement. Theory recommended effective mission statement should not be too lengthy; less than two hundred and fifty words, it should only be three or four sentences. The result of the analysis found that Overall, Mission Statement of Thai technology startup companies are effectiveness of communication. Because the average number of mission statement sentences and words is according to theory. Therefore, the company be sure business success through the cooperation of its stakeholders.

2. Readability level of the mission statement.

To calculate Fox Index, it should know complex word. And then turn complex word to percent of complex words. We found that percent of complex words less than 5 has three corporates, accounted for 16.67 percent; Between 5-10 has twelve corporates, account for 66.66 percent; More than 10 has three corporates, accounted for 16.67 percent. Overall percent complex words mean 7.78 After that, find Fox Index from formula for mission statements of the eighteen sample companies. See Table 4. Overall Fox Index average (Mean) 11.62. The highest was 15.26 and the lowest was 6.

Table 4: Percent of complex words, Complex words, Fox Index

No.	Corporates	Complex words	% Complex words		count	Percent	Fox Index
14	SCT	3	Less than 5	2.94			11.38
15	SIMAT	4		4.08			11.43
8	IIG	3		4.54	3	16.67	10.62

No.	Corporates	Complex words	% Complex words		count	Percent	Fox Index
3	BE8	1	Between 5-10	5			6
6	DITTO	6		5.22			13.59
7	ICN	6		6.19			11.58
16	SPVI	7		6.3			13.62
5	COMAN	5		6.58			12.76
17	TPS	4		7.69			13.48
13	SECURE	4		7.84			13.33
18	VCOM	4		7.84			13.33
4	BVG	10		8.4			15.26
10	NETBAY	3		8.11			10.64
9	IRCP	9		8.74			13.79
12	PROEN	8		8.89	12	66.66	9.56
2	BBIK	9	More than 10	12.5			8.2
1	APP	1		14.29			6.65
11	PLANET	6		15	3	16.67	14
					18	100	
						Mean	11.62
						Sd.	2.54

Sources: Researcher's Calculations

Readability level: The Fog index used to measure the readability level for mission statements of the eighteen sample companies can be seen from Table 5. Two companies were at the level of 14 up, representing 11.11 percent, suggesting that the level of readability for mission statements in this group is Difficult, which means that the text is difficult to read. The reader would need post-graduate to understand it at first read. Seven companies are at a level of 12-14, representing 38.89 percent, suggesting that the level of readability for mission statements in this group is Ideal, which means that the level is ideal for average readers. The reader would need a graduate high school senior and college Freshman, Sophomore, College junior to understand it at first read. Five companies are at a level of 10-12, representing 27.78 percent, suggesting that the level of readability for mission statements in this group is Acceptable, which means that the text is acceptable to read. The reader would need a graduate high school sophomore and high school junior, senior to understand it at first read. Two

companies are in the level of 8-10 representing 11.11 percent, suggesting that the level of readability for mission statements in this group is Childish, which means that the level is easy and meant for children. That the reader would need a graduate eight grade and high school freshman to understand it at first read. Two companies are in the level less than 8 representing 11.11 percent, suggesting that the level of readability for mission statements in this group is Very easy to read, which means that the level is very easy for average readers. That a person below seventh grade in the US education system, would understand it at a first read. However, the overall average (Mean) value of the Fog index for Technology firms is 11.62 at Acceptable.

Table 5 Readability Level

Grade Level/ Fox Index	Count	No	Corporates initials	Fox Index	Percent	Readability Level
18 up	0	-----	------	-------	0	Unreadable
14-18	2	11	PLANET	14	11.11	Difficult
		4	BVG	15.26		
12–14	7	5	COMAN	12.76	38.89	Ideal
		13	SECURE	13.33		
		18	VCOM	13.33		
		17	TPS	13.48		
		6	DITTO	13.59		
		16	SPVI	13.62		
		9	IRCP	13.79		
10–12	5	8	IIG	10.62	27.78	Acceptable
		10	NETBAY	10.64		
		14	SCT	11.38		
		15	SIMAT	11.43		
		7	ICN	11.58		
8–10	2	2	BBIK	8.2	11.11	Childish
		12	PROEN	9.56		
Less 8	2	3	BE8	6	11.11	Very easy to read
		1	APP	6.65		

Grade Level/ Fox Index	Count	No	Corporates initials	Fox Index	Percent	Readability Level
18			Mean	11.62	100	Acceptable
			Sd.	2.54		

Sources: Researcher's Calculations

Readability level of mission statements of Thai technology companies averaged 11.62, meaning is Acceptable level. The results of this study therefore agree to be in line with the hypothesis H 2: which has set that overall Readability level of Thai technology companies is Acceptable level -Ideal level.

Stakeholders' understanding of what the company intends to communicate through its mission statement, called Communicate efficiency. The factor that influences effectiveness of communication is readability level. Theory recommended effective mission statement should not be Difficult level and Unreadable level. The result of the analysis found that Overall, Mission Statement of Thai technology startup companies are effectiveness of communication. Because the average 11.62, meaning is Acceptable level is according to theory. Therefore, the company be sure business success through the cooperation of its stakeholders. There are two companies, accounting for 11.11%, readability at the Difficult level. This is due to a combination of three factors: the number of words used in communication, the number of difficult words, and the proportion of difficult words in a sentence. In the case of Company No. 11, the number of words used was 40, with 6 difficult words, giving a percentage of difficulty of 15. When calculated, the Fox Index was equal to 14 at the Difficult level. Company No. 4 has 119 words used, 10 words are difficult, and the percentage of difficulty is 8.4. When calculated, the Fox Index is 15.26 at the Difficult level. Difficult level which means that the text is difficult to read. The reader would need Post-graduate to understand it at first read. Unlike other companies that have the right mix of all three factors, such as having difficult words but a low percentage of difficulty and number of words, or having a lot of words but a low percentage of difficult words, etc. Therefore, to achieve efficiency in communication between business and stakeholders, two companies should review and develop new mission statement writing.

Discussion

Currently, no evidence has been found to show whether the mission statements of Thai technology startup companies are effective in communicating or not. They should know, if companies don't know. They will lose a lot of business opportunities because the technology industry is in the investment expansion and growth period. The lack of knowledge about the effectiveness of communication of Thai companies' mission statements,

the researcher sees this as a research gap. The factors influence the effectiveness of communication are word, sentence and readability. Therefore, the research aims to study the number of sentences and words in the mission statements of Thai technology startup companies. The hypothesis is (H1): Overall, the mission statement of the Thai Technology startup company has less than two hundred and fifty words and no more than four sentences. The analysis results found that the average number of sentences was 3.28 and the average number of words was 72.28, thus accepting the hypothesis H1. The second objective was to study the readability level of mission statements of Thai technology startups. The Hypothesis is (H2): Overall, the level of mission statement readability of Thai technology companies is an acceptable level to Ideal level. The results of the study found that overall, the readability level of mission statements of Thai technology startups was at an acceptable level. From the findings, it can be said that overall, Thai tech startup companies have mission statements that are effective in communicating between the company and stakeholders because they use words, sentences, and readability levels according to standard criteria.

Communication efficiency means Stakeholders' understanding of what the company intends to communicate through its mission statement. Because readers interpret meaning by analyzing words and sentences, a large number of words and long sentences can affect reading comprehension, resulting in reduced comprehension, inaccuracies or misunderstandings about what a company wants to communicate through a mission statement. (Klarke,1963 as cited in Dubay, 2004; Sattari et al., 2011; Wray & Janan, 2013) Including readability level which is an obstacle to communication is the use of difficult words, complex words that cause confusion and incomprehension, resulting in a decrease in the reader's ability to read (Cheng et al., 2018). This finding is consistent with the research of David (2020) found that Characteristics of seventy-four Fortune five hundred companies' mission statements, one of characteristics is Concise (fewer than one hundred words in length), found that mission statements were effective because they contained about one hundred words, which is within the recommended range. These results suggest, in practice mission statements are generally statistically much shorter than theory suggests. New direction for writing mission statements can be updated to be shorter in length than previously thought. Similar to the study of Schaap and González (2023) found that the sentence is very difficult to read. They suggested that If organizations want to write for their readers, they need to write shorter and simpler sentences. A target to aim for is fifteen - twenty words. That length is usually long enough to get the point across without losing the reader. Sentences of more than twenty-five words are often difficult to understand on a first reading, and even the most seasoned reader will typically struggle to make sense of sentences longer than thirty words.

Communication from managers to investors is very important and low readability reduces the usefulness of massage. So, it should not be difficult level and Unreadable Level (Blanco et al., 2021). The study

found that while most Thai technology startups have effective mission statements in their communication. But there are 2 companies that have readability at difficult level, which means that the text is difficult to read. The reader would need post-graduate to understand it at first read. Therefore, to create more effective communication between the company and its stakeholders. Corporates need to review and rewrite the mission statements by reducing sentence length and the use of multiple-syllable words (Rajasekar, 2013). Companies should review and develop a new mission statement that includes the following steps: Orientation, communication analysis, implementation analysis, and component analysis, such as identifying required components, drafting mission statements, communication analysis, semantic analysis (readability), legibility, and Compute Fog. (Cochran et al., 2008)

From the above, it can be concluded that an effective mission statement must take into account whether the reader understands what the company wants to communicate or not, for the benefit of both parties, which is widely accepted in business, especially in strategic management, marketing, finance, and accounting. If stakeholders cannot read and understand it, the desired outcome cannot be achieved (Khan et al., 2017; Blouin, Core, & Guay, 2010; Li, 2008 as cite in Sattari et al., 2011). Reading also helps build confidence in the stock market and attracts investors (Khan et al., 2017). If Thai technology startups know, it would be able to develop a mission statement to communicate to investors, lenders, customers, employees, communities, government etc. Stokehold will understand the intention of the business and support and cooperation, which will be beneficial to the business in the long run

Conclusion

The study found that in practice, mission statements are written according to theory and not according to theory. Those successful companies have mission statements that do not follow the recommended minimum of two hundred and fifty words and three or four sentences. The recommendations mentioned are based on the idea that readers interpret meaning by analyzing words and sentences (Klarke, 1963 as cited in Dubay, 2004; Sattari et al., 2011; Wray & Janan, 2013). The reason that why corporates have longest mission statement: firstly, it may possible be influenced by the vast area of activities to cover in terms of service delivery; and secondly, mission statement needs more explanation to make reader understand the message as the array of services may be vast (Khan et al., 2017).

One important thing to note is that there are several levels of Readability, such as: Difficult level means the reader would need post-graduate to understand it at first read; Acceptable level means the reader would need a graduate high school sophomore and high school junior, senior to understand it at first read. Very easy

to read means the reader below seventh grade would understand it at a first read. (Gutiérrez-Ponce et al., 2023; Rajabalizadeh, 2024) Therefore, it is recommended that companies or government agencies regularly review their mission statements. Check to what extent the target audience can understand what the organization wants to communicate. An example of a research study that explains this well is: Sattari et al. (2011); Her findings indicate that the levels of readability of mission statements particularly among broad-based audiences may be failing significantly. When mission statements and related corporate communications are not readable by intended stakeholders.

But if a company or government agency has relationships with multiple target groups and each group has a different level of understanding. The suggestion is to divide the main mission statement into sub-mission statements. To make communication effective for specific groups. (Cortés-Sánchez & Rivera, 2019; Sattari et al., 2011). But if a company or government agency wants to communicate for a wide audience, it generally requires a very easy to read level (Pitt et al., 2010).

However, in general, comprehension efficiency decreases as the length of the mission statement is involved. Long numbers of words and sentences can affect reading comprehension, resulting in reduced understanding, inaccuracy, or misunderstanding of what is being communicated in the mission statement (Klarke, 1963 as cited in Dubay, 2004; Sattari et al., 2011; Wray & Janan, 2013). Therefore, writing an effective mission statement should take these factors into consideration simultaneously.

A framework for writing effective mission statements: 1. An effective mission statement should be Simple, be Specific, be Realistic, Strategic Positioning, Relevant to Stakeholders, Long Term Orientation (Bansal, 2013) recommended length is less than two hundred and fifty words (David & David, 2015), Avoid using highly technical terms and unfamiliar words (Drohan,1999 as cited in Godkin et al., 2000); included complex words (Gunning, 1952 as cited in Dubay, 2004). A good mission statement should have the following general characteristics: To reflect on the existential plane the vision of the company; To incorporate the core corporate values; To be feasible, understandable and concise; To be generous in stating the company goals; To have a semantic impact on all stakeholders; To have a good literary formulation. Mission statement must be free of financial expression, numbers, percentages, ratios or objectives (Bratianu & Balanescu, 2008; David et al., 2014 as cited in Alawneh, 2015). 2. Communication to investors is very important and low readability reduces the usefulness of annual reports in terms of evaluating firm performance. So, it should not be difficult level and Unreadable Level (Blanco et al., 2021). Use of the Gunning Fog Index (GFI) to Readability level measures of mission statement.

Further Research

The following investigations will provide greater proof of truth and may contribute to the establishment of high-quality mission statements. Should conduct research on;

1. For good development and improvement, mission statement characters also have issues that should be studied to check their performance, such as nine mission statement components, Inspiring, Reconciliatory, and Enduring.

2. Readability can be tested with other measurement methods such as FRES and FKG, SMOG Index, how will it work? And to ensure that the results are clear for sure, is the opinion survey of stakeholders understand or not? How do they understand Mission statement of the company? Is gender, education, work, etc., an influence on reading comprehension?

3. Readability should be examined in other areas of the business, such as marketing communications, finances, with external stakeholders. Communication on human resource management and production with stakeholders within the organization which affects the success of the business quite a bit.

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