Unravelling the Malaysian Dewan Rakyat

ANALYSING PARLIAMENTARY DEBATES 2018-2019 USING DATA SCIENCE

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EXECUTIVE SUMMARY

1. Parliament is frequently used as an arena for political grandstanding.

    a. The debate opportunities are misused as a way to fish for votes using populist topics, especially those on basic infrastructures such as schools, hospitals, and roads.
    b. At the same time, important but less populist topics related to public policies such as the environment, and the industrial revolution are not prioritised by MPs.

2. Debate topics in Parliament are frequently driven by opposition MPs.

    a. Opposition MPs have more freedom to bring forward debate topics based on their own agenda. Most issues and topics debated in the Parliament are championed by Opposition MPs.
    b. Government MPs (i.e. the Executives), due to their portfolio as Ministers and Deputy Ministers, do not have much room to bring in new topics and issues. Their roles are limited to just answering questions raised by other MPs.
    c. Thus, the opposition bloc actually plays a major role in order to bring up certain agendas and debates topics in Parliament. Civil society and NGOs need to build good relationships with the opposition bloc if they wish to see certain topics being discussed in Parliament.

3. Video clips of MPs arguing with each other go viral easily.

    a. Video clips of public policy debates are less popular and less watched by the public.
    b. This shows that civil society has to play a better role in promoting awareness among the public on the public policy debates that are actually happening in the Parliament as they are less noticed compared to politicking antics that go viral easily.

4. Topics and debates of MPs have to be more substantive.

    a. MPs should be aided by a team of researchers to prepare research materials for Parliamentary debates. MPs currently have the choice to either use the service of Parliamentary researchers through the Electronic Parliament Research Service (EPRS) or their own research teams.
    b. MPs should also organise or join stakeholder engagement sessions more frequently with academicians, industry players as well as members of the public to obtain data and input from multiple sources as preparation for Parliamentary debates.

Recommendation

For MPs:

1. Allocate special funds for MPs to set up their dedicated research teams to assist in debate preparations.
2. Make use of the current research services in the Parliament via the Electronic Parliament Research Service (EPRS).
3. Organise public policy stakeholder engagements to obtain more comprehensive and current data and input with academicians, industry players, and the public.
4. Reduce politicking, increase focus on public policy discussions.

For civil societies and citizens:

1. Work closely with MPs and provide input and channel ideas for debate topics.
2. Take the initiative to evaluate MPs' performance in the Parliament in a comprehensive and holistic manner and spread the information to the public to produce smarter voters, who are not easily swayed by viral videos on social media.
3. Request for recordings of discussion held in select committees to be made available so that MPs performances can be monitored by civil societies and the general public.

Objective

This study aims to evaluate the contribution by Malaysian Members of Parliament (MPs) during parliamentary proceedings, especially on debating issues of public policy. Two key points to note are MPs' participation in parliamentary debates and what they say during parliamentary proceedings. The findings from this study will help guide policy suggestions on reforms needed to strengthen the parliamentary institution.

Overview

There is an abundance of criticism from the public regarding the effectiveness of our Members of Parliament (MP) especially with the widely available videos of MPs' altercation during a parliamentary sitting. One of the important criteria on which we based our analysis is the role of MPs in parliamentary democracy. The debates should also be evaluated whether they contributed towards the policy making decision instead of simply politicking. However, there is no existing systematic mechanism to assess our MPs' performance, especially when it comes to involvement in parliamentary debates. This analysis seeks to make early inroads into the area of Hansard Analysis and offer to show to the research community and civil society the huge potential that we can extract out of the Parliamentary records.

EXISTING LITERATURE ON PERFORMANCE EVALUATION

Various studies have been conducted to examine the performance of members of Parliament (MPs). The methods used ranged from simple observation of a few characteristics to Natural Language Processing (NLP). Some studies dived right into the Parliament Hansard, which is a verbatim record of parliamentary proceedings, while others only concerned themselves with aspects such as MPs' attendance in the parliament and the number of questions asked by MPs.

In one of the studies looking at the MPs and their constituency, Ong (1976) stated that there are two factors to be considered when evaluating the performance of MPs. The author used the Malaysian case as the basis of his study. He found that despite the public nature of the job as an MP, most services of an MP to his constituency are performed privately. The second factor is that few Malaysian MPs keep a record of services. Another challenge also arises with respect to the government MPs if they are a backbencher. This is because it will be difficult to say if any projects undertaken in the MP's own constituency are attributed to the MP or based on government decisions.

In India, however, the MPs' parliamentary performance is measured in a more straightforward way (PRS India, 2017). Three indicators are used: the number of debates participated by MPs, the number of questions asked by MPs, and the attendance of MPs in parliament. The MPs are then ranked accordingly. A higher number of debates and questions, coupled with a high attendance rate is perceived to be better.

A slightly more refined method to evaluate MP performance would be to evaluate an MP's performance based on question time. This method was employed in a study of the Queensland Parliament in Australia (Ojha, 2010). This study rated the answer given by MPs on a scale of 1 to 10, with 10 being the most effective answer given to a question directed to an MP. The authors noted that to a casual follower of parliament events, the workings of parliament are equated to question time. These parliamentary questions are an important part of most Westminster Parliamentary Systems. However, this method of evaluation is not without its flaws. MPs may 'abuse' the question time to ask 'planted' questions, resulting in a very prepared answer given. When this answer is evaluated, the result, more often than not, would be an effective answer. The authors also noted that MPs tend to treat the question time as a point-scoring opportunity rather than to seek accountability, with the opposition tending

to ask hostile questions and MPs from both sides asking hostile questions. Due to the nature of questions either being questions in notice or questions without notice, the questions in notice appear to elicit more effective responses. This can be attributed to the answerer being able to provide a more prepared answer.

Akirav (2019), on the other hand, developed a productivity scale to measure legislative productivity. This scale was used in a study to assess the parliamentary activities of UK MPs. This productivity framework puts forward that MPs have three roles, namely legislation, oversight of government, and representation. MPs' productivity is measured by their use of parliamentary tools, which are parliamentary questions, legislation, and their usage of early-day motions. For fairness, different weightage is applied to each tool, and different MPs will be assessed differently based on their difficulties. In the UK parliamentary context, the author did not judge opposition MPs by legislation proposal as they would not have opportunities to do so. This indicates the importance of having nuanced performance indicators for different MPs when evaluating them.

With the emergence of more powerful computers, it is only natural that the power is harnessed to analyse vast amounts of data. As the British House of Commons keeps verbatim records of parliamentary proceedings via the Hansard, the Hansard became an important source of data for automated analyses to be performed. Rheault (2016) measured emotions in parliamentary debates using automated textual analysis. The author contends that politicians in parliament make daily decisions that have a lasting impact on societies, and their emotional states are worth noting. The method used was natural language processing, performed on digitised text data of a century of parliamentary debates. An initial list of keywords was created to capture positive and negative emotions in the English language. This list was then used as a starting point for creating emotional lexicons that are adaptive to any domain. The study found that political debates have taken on a more positive tone in recent years. This finding remains true, regardless of the MPs allegiance to either government or opposition.

Another study that utilised the Hansard of UK parliamentary debates (Abercrombie, 2018) was related to sentiment analysis. For this study, the sentiment analysis was scoped to speech level. Sentiment analysis is the task of automatically identifying the polarity (positive or negative) of the position taken by an opinion holder towards a target using computer software; opinion mining methods were applied to these transcripts. The output of this method was either positive or negative sentiments towards motions proposed in parliamentary debates.

In order to have a more nuanced understanding of responses to both positive and negative motions put forward in parliament, the authors used a 2-step motion-speech model, where speeches given in response to positive and negative motions were classified separately. This allows for positive and negative sentiments towards positive and negative motions put forward. The study concludes that this sentiment analysis of Hansard transcript at speech level does not lead to new insights, as the same conclusion can be reached by just examining the MPs voting records.

There are also frameworks put forward regarding parliamentary performance but do not make specific references to MPs themselves. In 2003, the World Bank (World Bank, 2003), published a conceptual framework to measure parliamentary performance. The framework identified three determinants of parliamentary performance that are critical, namely governance context, parliamentary culture, and organisational capacity of the parliament. Within each determinant, the proposed framework has key indicators to be measured. These key indicators are in the form of questions, probing on issues such as MPs' knowledge to participate effectively in the budget process, opportunities in parliament for MPs to improve their knowledge and skills, and influence of the MPs on the budget.

While the methods mentioned above all focus on the parliamentary process itself as well as the MPs, one study performed on the Canadian parliament uses data gathered from surveys to evaluate the MPs' performances (Gidengil & Bastedo, 2014). The respondents are ordinary Canadian citizens. Contrary to MPs' beliefs that they deal with individual constituents well, the survey found that citizens thought their MPs failed to deal with their constituents' problem well. The survey also cited a potential lack of political awareness among constituents as a reason that constituents gave negative ratings on their MPs. These constituents may not necessarily be aware of what MPs are supposed to do.

THE ROLE OF MPS

According to Ong (2014), the role of Members of Parliament (MPs) in Malaysia depends on the type of constituency. It is reported in the article that there are three types of a constituency which are rural, urban, and semi-urban. Thus, there is a correlation between the type of constituency and the effectiveness of MPs in performing their role which is said to be limited in dealing with personal and individual problems. There is no doubt that the role of MPs is to engage between the elites and the masses. However, the MPs still have a limited role in handling each personal problem but are expected to be aware and take responsibility for all issues and requests from the people (Ong, 2014). Besides, this article also highlights the role of MPs which is to ensure all proposed projects should be implemented as planned.

Besides that, an article written by Malike (2017) also explained the important role of the elected representatives or MPs which involved the parliamentary and constituencies roles, social services, and their political party. The MPs should be responsible for allocating their time to each of the roles. In this article, the author stated that the roles of MPs in the Malaysian parliament are working in the legislative, constituencies, and for their party. Not only that, Malike (2017) mentioned that the MPs are accountable for election campaigns which encourage and convince the citizens to cast their ballot for their party. Hence, the MPs that have been elected should meet their people for some activities with high commitments in their constituency (Malike, 2017).

Next, Muhamad Fuzi (2008) also pointed out the role of the MPs in Malaysia, which is to make democracy work. Muhamad Fuzi (2008) highlighted that the Malaysian Parliament's opposition members are responsible for practicing check and balance in the government by asking questions to the ministers. Some of the policies that are being debated in Parliament by the elected ministers might not be successful, thus the opposition MPs will suggest some alternative policies to assist the government by involving in Parliamentary proceedings. Not only that, the MPs from the opposition party will use different methods to make the MPs from the government responsible to the electorates (Muhamad Fuzi, 2008).

Next, Szarina and Husnita (2012) also shared in their article about the role of the MPs which the MPs that have been elected by the citizen will use their power to formulate laws and policies for the benefit of all citizens. Hence, the MPs will execute the laws and policies that have been enacted in order to address all the issues that arise. Szarina and Husnita (2012) added

there is no doubt that all the MPs in Parliament should have a better understanding of all general knowledge and in all fields in order to get the information through debates and research. Subsequently, it will lead to the well-being of a nation.

PARLIAMENTARY PROCEEDING IN MALAYSIA

However, in order to properly evaluate MPs' performance, we need to understand the parliamentary proceedings that MPs are involved in.

According to Malaysia: Standing Order of the House of Representatives in Article 62(1) of the Federal Constitution (2001) stated that the first meeting of the House after a General Election, the Members of Parliament will be assembled at the time and place duly appointed and being seated in accordance with the provisions of Standing order 2. After that, the Secretary of the House of Representatives shall read the Proclamation of the Yang Di-Pertuan Agong in which the meeting was summoned. On that day, the Order of Business shall include (a) the election of the Speaker of the House of Representatives; (b) the taking and subscribing of the oath of the Speaker of the House in the form set out in the Sixth Schedule to the Constitution; (c) the taking and subscribing of the oath of all the members present in the form set in the Sixth Schedule to the Constitution; (d) Election of the Deputy Speakers; and (e) Motion directing the Inspector-General of Police to provide free passage to Members of Parliament.

According to Mohamad Ariff *et al.* (2020), the parliamentary proceedings in Malaysia will be involved by the speaker who is needed to ensure his non-partisanship. The speaker is assigned to allocate the time and allow all Members of Parliament (MPs) to involve in debates, pose questions and supplementary questions, and approve motions to be debated (Mohamad Ariff *et al.*, 2020). Not only that, Muhamad Ariff *et al.* (2020) added that during the Parliament session, the opportunity to debate is given as equally as possible to all MPs within the constraints of parliamentary time. The ruling that will be debated should be specific and the Speaker will answer it immediately with a brief decision and later it will be recorded in Hansard. If the ruling needs more elaboration from the Speaker, he would respond on a later date in writing which is called "written ruling" (Muhamad Ariff *et al.*, 2020).

On the other hand, the parliament proceeding in Malaysia includes the authority to maintain order in the House. Mohamad Ariff *et al.* (2020) stated that no Members of the Parliament should speak unless called upon by the Speaker. He added that the Members shall rise in their place only when the Speaker allows them if they intend to speak and address their observation to the Chair. According to Standing Order 44 (1)(2), if the Members of Parliament

show irrelevant or tedious arguments during the debates, the Speaker has the authority to withdraw him from the House for about a period of not exceeding ten days (Mohamad Ariff et al, 2020).

THE MPS REPORT CARD EVALUATION IN MALAYSIA AND OTHER COUNTRIES

Research has been done observing how Malaysia and other countries with similar parliamentary systems evaluate their MPs based on their constituency and parliamentary session performance. The evaluation method differs, as mentioned in the previous section, the type of data used in the evaluation is variant. It might be derived from survey data to the level of participation and audit institutions.

Gidengil and Bastedo in 2014 studied the performance of Canadian parliamentary members by examining citizen perception of their MPs in respective constituencies. The data were collected via a survey method called Samara Citizens' survey. Based on the survey, it can be said that the MPs failed to represent their constituents. However, citizens gave higher scores for MPs' role in representing their political party views and effort in debating and voting action on issues in the House of Common. This survey can be used as a tool for the Canadian Parliament to evaluate MPs' report cards related to representing their constituency.

This research used a 'productivity scale' to measure UK MPs' performance by focusing on MPs' participation level in the parliament proceedings. Akirav (2019) identifies the UK MPs' legislative productivity by assessing parliamentary activities based on the number of inquiries, presenting motion earlier in the day, and the MPs' capability in initiating bills individually. Hence, Akirav (2019) disclosed UK MPs may confront difficulty in prioritising the interest of the party and constituency demands during sessions in the parliament.

The method of conducting interviews with the Members of Parliament is insufficient to analyse their parliamentary performance. Hence, Coelha and Monteiro (2015) explore other oversight tools used by other parliaments such as in Brazil, Portugal, France, and the United States. Particularly, they evaluate elected officials' performance based upon hearing, active oversight instrument, Supreme Audit Institutions, and public policy evaluations. However, the oversight tools were not effective to properly evaluate the parliamentary performance based on the quantitative data collected. Coelha and Monteiro (2015) unable to discern a model made specifically to assess the parliamentary performance.

Performance Based Research Fund (PBRF) is an evaluation system in New Zealand. It was used to assess scholars' productivity among researchers. Thus, Levine (2005) compared the system with the method to assess MPs' performance. Levine (2005) expounded voters' inability to reflect the performance of their MPs, especially during election season. Thus, he suggested a more comprehensive instrument to grade the MPs. Nonetheless, it will affect the public image of the MPs and the voting result for subsequent elections. He revealed that it is impossible to grade the MPs objectively.

Mandelbaum (2011) explores the Parliamentary Monitoring Organization (PMO) that was found and mostly used in Latin America and Central and Eastern Europe. PMO is a non-profit organisation that would act as a tool to oversee performance and action carried out by MPs individually, which comprise over 86% of their function. PMO established several tools to monitor the MPs' performance in terms of e-democracy and e-participation. The organisation aggregates the information in creative ways to ease public access to MPs' report card. However, Mandelbaum (2011) revealed PMO has limited information retrieval depending on the official parliament website's information; hence, PMO resort to other sources such as conducting surveys, contacting political parties or local MPs' offices. Basically, the MPs are being monitored based on their effort in "parliamentary attendance and participation; parliamentary debate and public statements; oversight tools; legislation and voting records; constituency service and constituency development funds; and MP asset disclosures and political finance". Primarily, PMO monitoring MPs serve to help in upholding accountability culture within the parliament institution.

A simple study performed by Tham Jia Vern from The Centre (2019) also utilised computing power to perform analysis on parliament Hansards. The study covered Hansards across five meeting sessions after the 14th General Election for the lower house of the Malaysian Parliament, known as *Dewan Rakyat*. The author conducted a surface level frequency count to discover the key issues raised by the Members of Parliament (MPs). This is then supplemented by additional information on the coverage media received concerning the issue. The study found that the top topics discussed changed across different parliament meetings. However, the topic of Sabah and Sarawak was featured prominently across all five parliament meetings. The top topics debated in the House also vary based on the current issues happening during the meeting.

Apart from the study by Tham (2019), Ahmad *et al.* (2020) also used the Hansards of *Dewan Rakyat* to evaluate the effectiveness of Malaysian MPs in Parliament. The study focused on the participation level of the MPs during debates and the questions that were raised. Unlike the study by Tham, this study only uses data from one parliament meeting, which ran from 7 October 2019 to 5 December 2020. In line with Tham's study, Ahmad *et al.* found that questions relating to Sabah and Sarawak were among the top 5 topics asked. The authors also found that quantity does not lead to quality. For example, one male opposition MP spoke 2,753 times but only raised two questions.

POLITICAL LANDSCAPE POST-14TH GENERAL ELECTION (GE14)

In order to better interpret our findings, we also looked at the political landscape during the timeline of our dataset as it was the first time Malaysia experienced a change of government.

The 14th Malaysian General Election on 9 May 2018 was cited as a watershed moment in Malaysian history. It marked the first time the ruling Barisan Nasional (BN) coalition had lost in Malaysia's election since its independence in 1957. The BN coalition had enjoyed an uninterrupted reign for 61 years prior to the elections. For the first time, in an unprecedented victory, the Pakatan Harapan (PH) coalition obtained a simple majority in the *Dewan Rakyat* which is also known as the Lower House of Malaysian Parliament. The PH coalition was led by Mahathir Mohamad, who was sworn in as the Prime Minister of Malaysia on 10 May 2018. This marks his second stint as Malaysia's Prime Minister.

This change in government was not without its challenges. For one, expectations were sky-high on Pakatan Harapan to deliver their promises after their election victory. The citizens expected quick results. Many immediate concerns were addressed, namely abolishing the Goods and Services Tax (GST), institution reforms, and tackling corruption. However, many were left frustrated at the efforts of the PH government on more systemic matters such as Bumiputra development (Lee, 2020). PH did not manage the expectations of both majority and minority ethnic well. According to Merdeka Center (2019), the PH administration approval rating had decreased drastically from 71% to just 39% between August 2018 to March 2019. Another earlier study also found that the Malay community's confidence in Parliament and political parties had declined between January 2018 to December 2018 (Zurairi, 2019).

Besides facing brewing trouble on the public opinion front, the PH coalition also had internal problems. While Mahathir Mohamad's new party, the Malaysian Indigenous Party or

also known as *Bersatu* did help PH gain significant Malay support in the general election, his party still holds the smallest number of seats compared to *Bersatu's* partners in the PH coalition. As a result, *Bersatu* opened its doors to opposition lawmakers from UMNO to join Bersatu. This move caused friction between PH coalition members.

There was also constant uncertainty regarding the leadership in PH (Oh, 2019). Talks were always surfacing of Anwar Ibrahim replacing Mahathir Mohamad. However, Mahathir Mohamad frequently refuses to name his successor. This leadership tussle also added to the instability of the PH coalition.

In February 2020, a shocking power grab occurred, which saw Mahathir Mohamad replaced by Muhyiddin Yassin (Kassim, 2020). The PH coalition collapsed when Muhyiddin and Azmin Ali broke away from Pakatan Harapan along with their supporters. This tilted the balance of power in favour of the Perikatan Nasional (PN), a loose coalition of Muhyiddin and Azmin supporters, along with the United Malays National Organisation (UMNO) and Pan-Islamic Party (PAS). No election was conducted, as the new government led by Muhyiddin Yassin was formed through defections from Pakatan Harapan members of parliament (MPs). Even so, UMNO is seen to be unhappy with the allocation of ministerial posts and has voiced concerns. In August 2020, Mahathir Mohamad, now ousted from his *Bersatu* party, announced that he would be forming his own party. This new party will be named PEJUANG (Razak, 2020). It remains to be seen if the Malaysia political scene will stabilise soon.

IMPORTANCE OF OPEN DATA

While it is important to evaluate performance in Parliament, it is also equally important to ensure access for data remains open. Without access to data, quality research will not be possible. One such initiative to promote open data is the Sinar Project. The Sinar Project makes important information more accessible to Malaysians. Examples of data included are profiles of elected representatives and parliamentary documents that may not be uploaded into the public domain. For example, written replies to oral questions in parliaments are not published on the parliament website, making it difficult for Malaysians to know more about parliament proceedings and data. Through collaborations with MPs, Sinar Project is able to obtain copies of documents and make them open access for all. This helps to hold the government and parliamentarians accountable for their actions.

METHODOLOGY

The source of data used for this study is the Hansard for the Lower House (Dewan Rakyat) of the Malaysian Parliament. The Hansard is for the 14th Session of the Parliament and covers the first term and the second term only. Specifically, the dates are from 16 July 2018 up to 5 December 2019. Conveniently, this means that the Hansards analysed were only during Mahathir Mohammad's government. The most recent change of government was in February 2020, which is after the end of the second term of parliament. More pertinently, the Hansard has a verbatim record of every single interaction happening when the parliament is in session. While this ensures no detail is lost, it results in a lot of data being recorded each time the parliament is in session.

In order to analyse the data, it had to first be 'fed' into computer software. Soft copies of the Hansard were loaded into the software. This software allowed us to count the frequencies of words said during parliamentary proceedings. In order to analyse the proceedings more effectively, we determined ten themes of discussion that would be worth looking into. The themes are as follows:

1. Infrastructure
2. Economy
3. Race/Ethnicity
4. Religion
5. Politics
6. Technology
7. Social
8. Climate and Environment
9. Education
10. International Relations

Within each theme, a list of related keywords was compiled. The list of keywords can be found in the appendix. Using the themes, we are able to determine if each topic is only 'dominated' by certain MPs or not. If a particular MP is heavily involved in the topic, there could be a reason behind it. The frequency of keyword hits by each MP is recorded. A keyword hit is registered when an MP speaks a keyword that is in our list of keywords. For instance, within

the infrastructure theme, there were keywords such as 'school', 'hospital', and 'housing'. Through this exercise, we are able to establish the top MPs for each keyword. Other than that, we are also able to rank the MPs based on the number of keyword hits.

To investigate if there are any links between speech frequency and keyword hits, we performed a frequency count of the number of times MPs "spoke". In this case, the qualifying metric used was the number of times that an MP "took the microphone". This is due to the nature of how Parliamentary proceedings are recorded in the Hansard. Even if an MP only spoke one word, it would still be counted. We hypothesised that there could be MPs who may "take the microphone" frequently but may not have many keyword hits. The opposite applies as well, some MPs may not speak frequently, but when they do, their speeches could be very focused.

The MPs are classified into three types: government MPs, who are Ministers and Deputy Ministers, backbencher MPs, and opposition MPs. The classification is based on the MP's political party during the parliament sessions.

These themes are chosen based on the areas that a developing country has to typically focus on, which are human capital, infrastructure as well as economic and social reforms. Human capital can be developed via proper education. In line with current issues, we also included forward-looking themes such as technology and the environment. We also took note of the social fabric in Malaysia and included race and religion as the themes to be looked into as well.

A list of negative-themed words was also created. Words with a negative connotation such as "stupid", "robber" and "thief" are among the words included in the list. The purpose of this list is to investigate whether politicians spend more time "politicking" or speaking about policies. With the aid of the software, we are able to attribute a specific word to a particular MP and how many times he uttered that particular word in the Parliament. This allows some judgment to be made if an MP regularly behaves in an unparliamentary manner.

As the scope of the study covers two terms of Parliament meetings, we also built a parliament question bank from questions 'scraped' from the Hansard. The purpose of this is to determine whether there is an occurrence of similar questions being asked in Parliament. By comparing questions asked across two different terms, we are able to proxy for the level of

preparedness of MPs. Should there be repeating questions of a similar topic, it is an indication that the MP did not prepare well by preparing for previous proceedings. Other than that, we also looked into the topics of the questions asked in the Parliament. We wanted to investigate the topics that are frequently raised in the Parliament via question time.

To add more context to the data, we also performed basic profiling on the MPs to understand MPs' demographics in the Lower House of the Parliament. The main data points we looked into are the age distribution, gender distribution as well as the political party and coalition of the MPs. We wanted to determine if the Lower House was dominated by MPs of a particular age group or gender.

As the parliament is not in session continuously for an entire year, we also investigated whether the time is used effectively in the parliament. Using the list of "negative" keywords listed earlier, we manually searched for these keywords in the Hansard and recorded how much time was spent on such arguments for each day in the scope of our study. The duration was calculated using the timestamps provided in the Hansard.

Upon completing our study, we also engaged with the current Speaker of the Lower House and some MPs for their feedback. To allow for more candid feedback, we engaged with the MPs personally instead of in-group. During the engagement session, we presented our findings to the MPs and noted their comments.

FINDINGS

1. Keywords

Based on our analysis, we found that the keywords mentioned generally reflect some main concerns among Malaysians. The top five keywords, for example, were "Sarawak", "School", "Sabah", "Rural Areas", and "Hospital". Figure 1 below illustrates the top 20 keywords based on the MPs' frequency in speaking in Parliament.
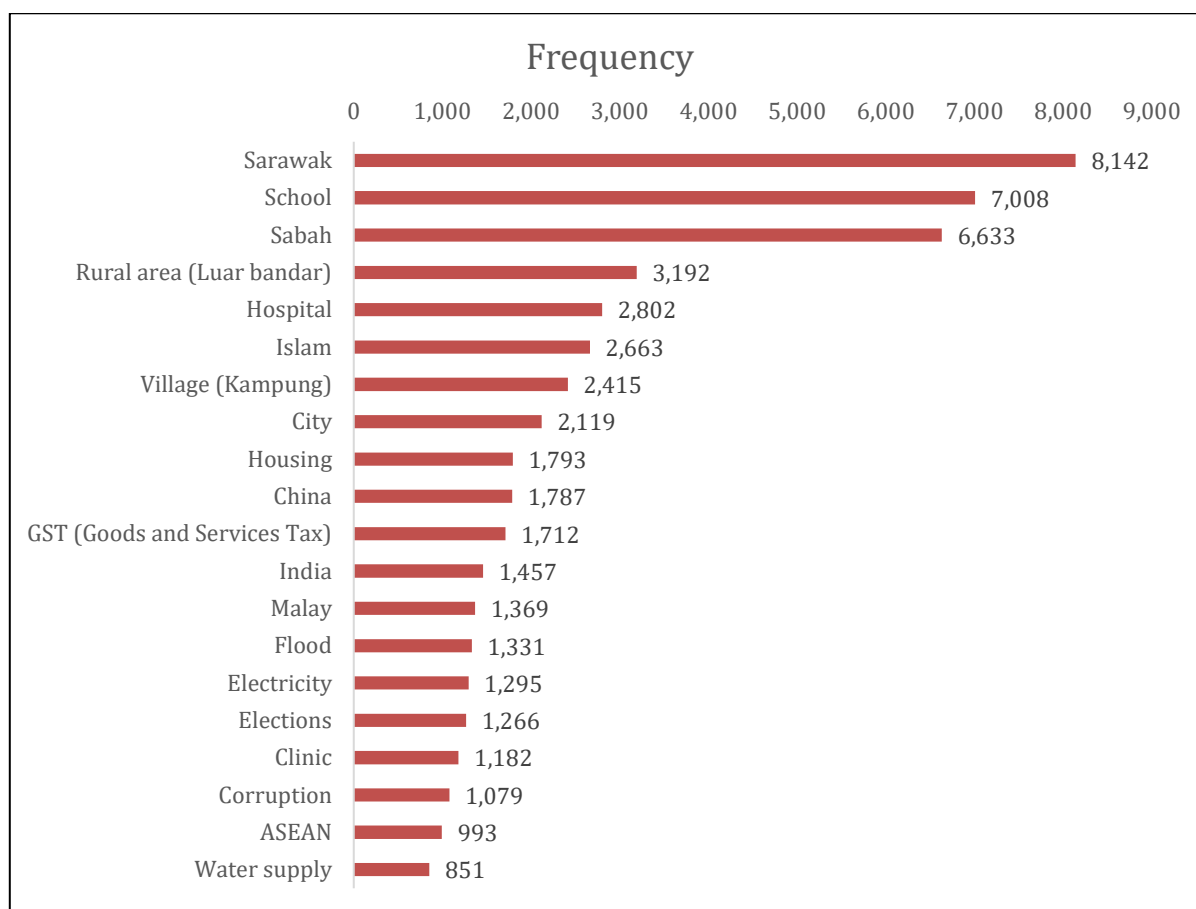

Figure 1: Frequency of keywords

This finding is quite similar with previous research by The Centre and The Star regarding topics highlighted by MPs in "Dewan Rakyat" parliamentary sitting where the word "Sabah", "Sarawak", and "Rural Areas" were the words mentioned predominantly.

Based on the top 20 keywords, most (35%) of the keywords are related to infrastructure issues. This is followed by social issues (15%) and "politicking" keywords (10%). Closer scrutiny, however, reveals that the frequency distribution of keywords is concentrated among the top 7 keywords. The top 7 keywords make up 51% of the total frequency, indicating that

infrastructure issues, along with social issues, and East Malaysia are the most discussed topics in the Parliament. As infrastructure is a basic provision from the government, it is not surprising to see that infrastructure-related keywords are among the top keywords, reflecting general concern among MPs.

In contrast, the three least discussed topics in the parliament (bottom 3, most to least) are education, technology, and the environment. Based on the keyword hits, these three topics each had less than 1% of the total keyword hits. These topics were seldom brought up in the parliament to be debated, although all three topics are crucial for a country's future. A possible explanation for this could be a lack of interest among the public in topics such as technology and the environment.

While it is reassuring to know that bread and butter issues such as infrastructure are raised, the lack of forward-looking topics among top topics such as technology and environment indicate that MPs could be lacking in ideas or preparation for parliament debates. It could also be that the MPs find that these issues are not popular among voters, and thus, there is no incentive for MPs to talk about it.

2. Overview of Topics and Active MPs

Infrastructure – Keywords related to infrastructure are the most popular ones. The top keywords in this topic are "school", "hospital", "housing", "flood", and "electricity". These are all basic infrastructures. However, based on our method, we were not able to specify whether they touched on the issue of education pedagogy or just purely on infrastructure when they mentioned school. 4 out of the top 5 MPs in this topic are government MPs, likely called into action to answer infrastructure-related questions during question time.

Sabah and Sarawak – Both are among the keywords with the highest frequencies in this study, suggesting keen interest in these two states among MPs. "Sarawak" was mentioned 8,142 times while "Sabah" was mentioned "6,633" times. A brief glance at the Hansard records suggests that these two keywords encompass a wide range of topics, from education to infrastructure, to foreign affairs and the economy.

Race and religion – "Islam" is the most popular keyword in this topic, with a keyword hit of 2,663 times, followed by "India" and "Malay". One possible explanation for "India" being a more popular keyword is that in the Malay language, the same word is used to refer to India as a country as well as the Indian race. The top 2 MPs in this topic are both opposition MPs. MPs

mostly mention the keyword "Islam" from the Islamic political party, which are the Pan-Malaysian Islamic Party (PAS) and National Trust Party (AMANAH).

Urban-rural – "Rural areas" are mentioned the most, followed by "villages" and "cities", with keyword hits of 3,192 hits, 2,415 hits, and 2,119 hits respectively. There is a healthy balance of interests from MPs across both sides of the political divide, with the top 2 MPs being Government MPs. These keywords are often linked to broad issues such as infrastructure, social problems, and livelihoods.

Economy – Popular keywords include "GST – Goods and Services Tax", "SST – Sales and Services Tax", and poverty. "GST" was the overwhelming favourite for economy-related keywords, scoring 1,712 hits throughout the duration covered in this study, which is approximately 1 thousand more than the next most popular keyword of "SST". It is no surprise that the top 2 MPs on this topic were opposition MPs. Prior to the change of government, it was the previous government that introduced GST, while the new government, led by Tun Dr. Mahathir Mohamad wanted to abolish GST. It was only natural that the opposition would seek to oppose any policy abolishment. Further contributing to the popularity of this "GST" keyword was the political connotation that it brought, thus giving MPs an incentive to be even more active in this topic to appear more 'visible' to the public.

International relations – It comes as no surprise that "China" is the most mentioned keyword in the topic of international relations given that Malaysia and China are close trading partners. Malaysia is also part of China's Belt and Road Initiative (BRI). However, it is also possible that the high frequency of the keyword 'China' is due to the contestation occurring between several countries in the South China Sea. As for ASEAN, it is possible that regional cooperation among ASEAN countries was brought up during parliamentary debates. Geopolitical events such as the US-China trade war may have also influenced debate topics in the Parliament, and international trade issues such as the boycott of Malaysian palm oil by India. This shows that debates in the Parliament are driven by current issues at regional and global levels.

3. *MP Profiling*

In line with popular belief, the Lower House is indeed dominated by males compared to females. Male MPs make up an overwhelming 85% of the 222 MPs. As for the age distribution, more than 50% of the MPs are between the age of 50 to 69 years old. The age distribution of MPs is not proportionate to the age distribution of Malaysians. 49% of Malaysians are between 25 to 64 years old (The World Factbook, 2020), but MPs are heavily concentrated in just a narrow age band between 50 and 69 years old. The concentration points to a lack of younger MPs in the parliament.

4. *Question time*

Other than the debate speeches, the questions asked can also give a good indication of the topics of interest. Figure 2 below shows the topics of interest-based on the questions asked.
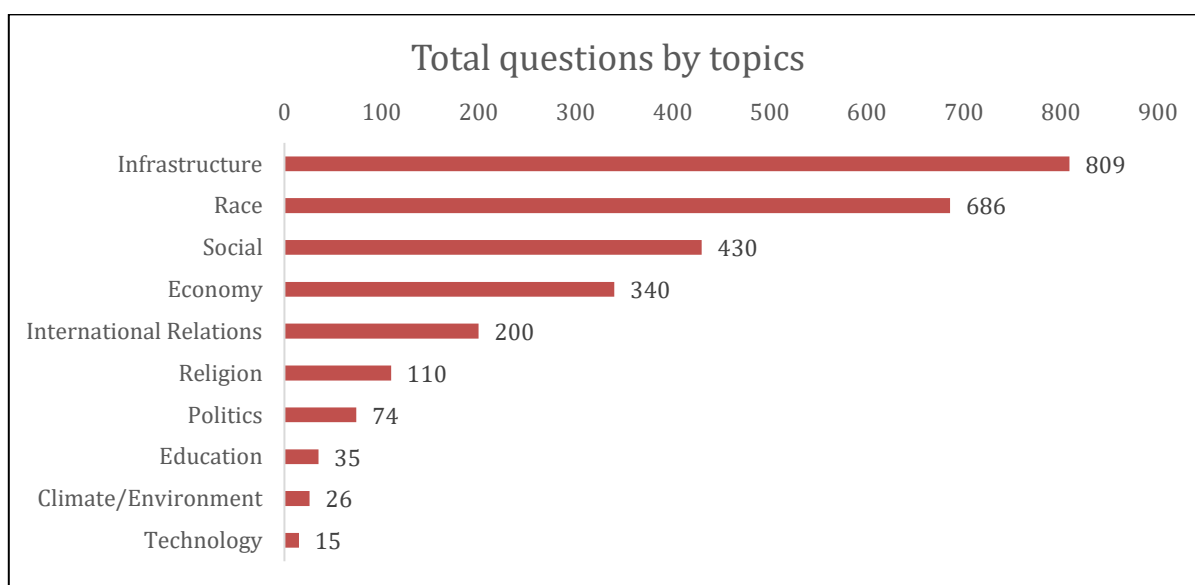

Figure 2: Topics of interest and number of questions asked

Infrastructure is the most popular topic, followed by race and social issues. In terms of infrastructure, most of the MPs concern schools and hospitals, as corroborated by the frequency count of the keywords. From the questions asked in the Parliament, close to a third of the questions (28%) were repeated questions.

5. *Top MPs: Frequency & Keyword Hits*

Figure 3 shows the top 10 MPs that took the microphone to speak during the Parliament session. From the list of top 10 MPs, we can see that 8 out of 10 of them are opposition MPs. Given that the main role of the opposition bloc is to provide check and balance, the observation makes sense as the MPs from the opposition bloc were more motivated to speak up during debates. This implies that MPs from the opposition bloc are the ones who control the debate patterns and topics in the Parliament.
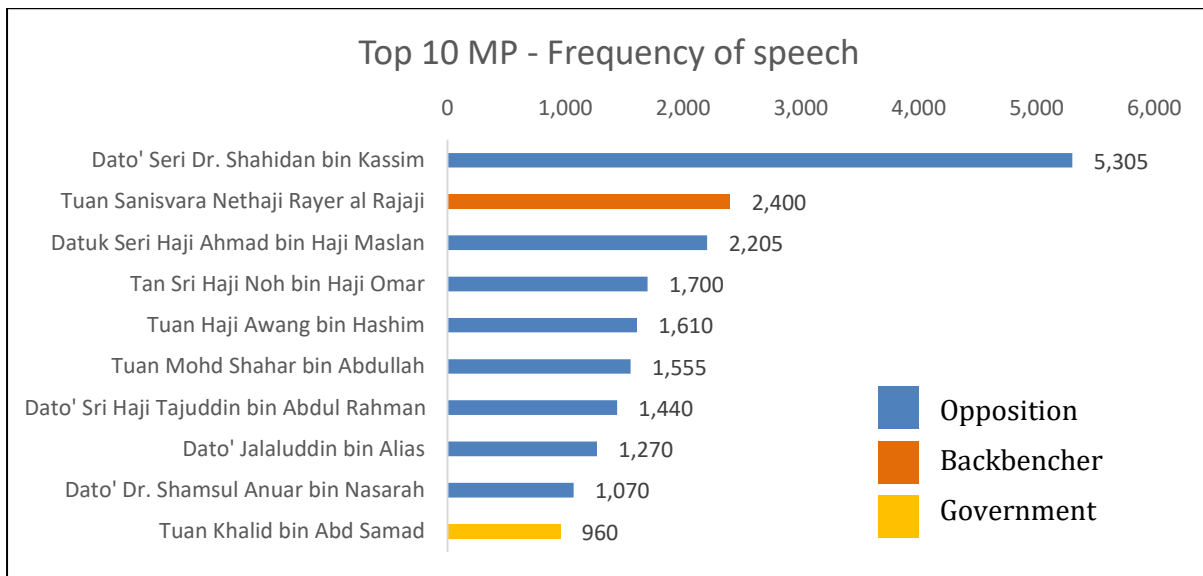

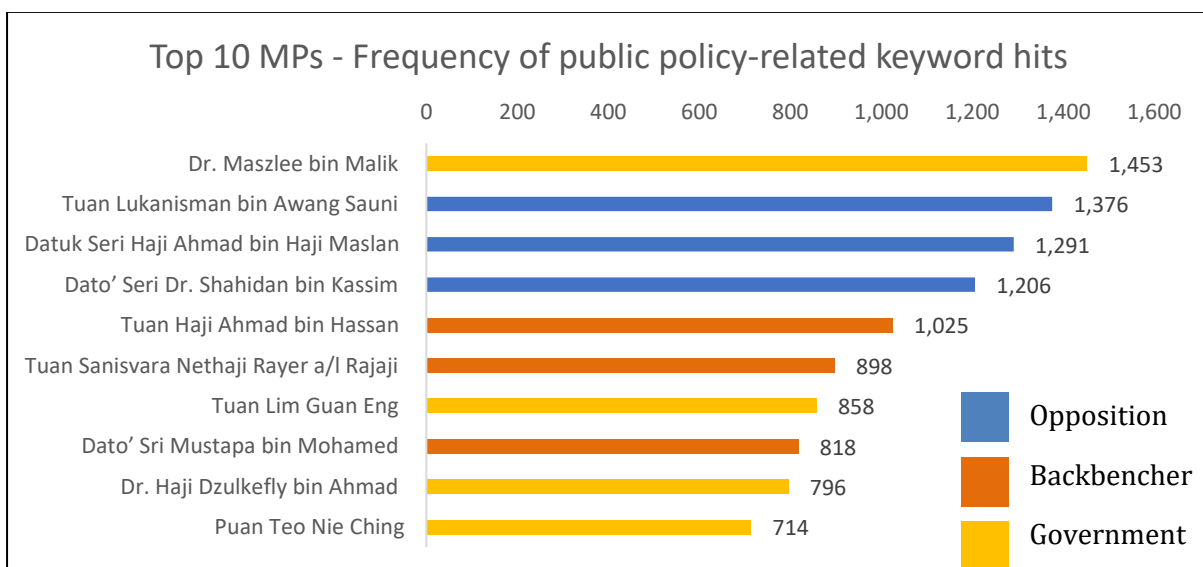Figure 3: Frequency of "speaking" in the Lower House

Figure 4: Top MPs in terms of public policy-related keyword hits.

As illustrated above in Figures 3 and 4, it can be confirmed that even though the MPs frequently speak in the Parliament, it does not the MPs speak on significant issues. The frequency of speech is the number of times an MP takes the microphone to speak up in the Lower House. The keyword hits of an MP are the number of times an MP speaks each word that is on our keyword lists.

Comparing Figures 3 and 4, only three MPs who spoke most frequently were among the top 10 MPs who had the most keyword hits. Meanwhile, the MP that spoke the most frequently, Dato' Seri Dr. Shahidan Kassim, took the microphone more than 5,000 times but only registered 1,206 keyword hits. He is an opposition MP whereas, the MP with the most keyword hits was Dr. Maszlee Malik, the then-Education Minister. His position as the Education Minister, which is traditionally an important portfolio, likely contributed to his keyword hits. He took the microphone for a mere 415 times but still registered more hits than Dato' Seri Dr. Shahidan Kassim, with a keyword hit count of 1,453 hits.

One MP was in both the top 3 of MPs that spoke the most frequently as well as the top 3 MPs that had the most keyword hits, Datuk Seri Haji Ahmad Maslan. He spoke for 2,205 times, but he had a keyword hit of 1,291, suggesting that he managed to produce meaningful debates and at the same time, speak up more often.

By comparing top MPs in terms of keyword hits, we can see that there are different interests among different types of MPs. For example, the top government MP, Dr. Maszlee Malik, spoke at length about schools, while the top opposition MP with the most keyword hits, Tuan Lukanisman Awang Sauni, frequently mentioned his home state, Sarawak. This shows that he was very concerned about the state of affairs in Sarawak, thus justifying the high keyword hit of Sarawak with 569 hits.

6. Politicking

While viral video clips of Malaysian MPs politicking in the Lower House may give out an impression that the MPs do not engage in meaningful debates and discussions, data from Hansard suggested the opposite. Figure 5 depicts the time used for politicking and debates.

Time used for debate and politicking

52 hours 57 minutes
5.7%

■ Politicking
■ Debate
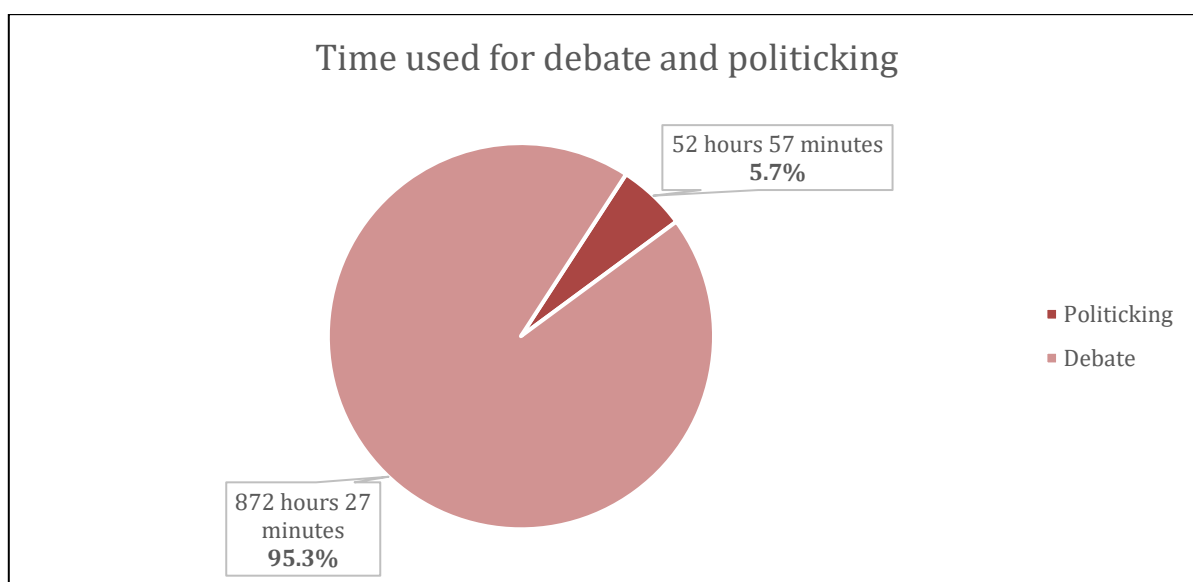
872 hours 27 minutes
95.3%

Figure 5: the time used for politicking and debates.

Overall, the MPs only spend 6% of the total time to engage in politicking antics. On an average 8-hour day in the Parliament, this equates to 27 minutes out of that 8 hours used up in politicking. The finding indicates that MPs do spend an overwhelming majority of their time (94%) in the Parliament to engage in meaningful debates. However, the small amount of time that MPs do spend on politicking involves the usage of words such as "corruption", "slander", and "stupid". Among these words, the word "corruption" was used up to 1,000 times in Parliament. This is usually a mix of actual discussion on anti-corruption, along with MPs taking potshots at each other through unfounded accusations.

7. *Feedback from the current speaker and MPs*

YB Datuk Azhar bin Azizan @ Harun, current Speaker of the Dewan Rakyat:

During the engagement session with the current speaker, YB Datuk Azhar bin Azizan @ Harun, one of the suggestions he put forward was to carry out structural parliamentary reforms and standing orders in relation to a specific code of conduct. He also spoke on the need for dedicated research officers for MPs as current parliamentary debates are not supported by enough facts and figures, resulting in debates that are not substantive enough.

YB Datuk Azhar also cautioned against solely using MPs' actions in the Lower House of Parliament to gauge and MPs' contribution as there are many times that these MPs will debate about the bills in committees instead. Similarly, certain topics that are less mentioned in the Lower House may have been already discussed in special select committees, interest groups and MPs may even have engaged the members of the Executive Branch for further discussion. Thus, it would be unfair to say that MPs do not talk about certain issues based on the Lower House's Hansard records.

Besides, MPs are also more prone to talk about 'universal' issues such as infrastructure as topics that are perceived as less popular will not help the MPs gain political mileage.

Current Members of Parliaments (MPs) of the 14th Parliament of Malaysia:

The general feedback from the MPs centred around the research capability as well as the public's knowledge of the political system.

Most of the MPs highlighted the need for better research in order to produce better quality debates. Not only that, the budget allocation for dedicated researchers for MPs is insufficient and should be increased. The public may also not be aware of pertinent national issues, however, the publicising of national issues should be the responsibility of the MPs themselves. Infographics and videos may be used to educate the public on national issues as well as the official roles of MPs.

One of the MPs mentioned that some issues are not raised frequently because those issues are not popular, such as technology and the environment. Another MP also suggested that debates be analysed according to ministries to evaluate MPs' contributions. At the same time, it is also important to not jump to conclusions when it comes to debates about race and

religion as the debates may be constructive. The same applies to interjections, where they can either be disruptive or constructive to debate flows in Parliament.

CONCLUSION

The data indicate that MPs often debate on the same issues, as noted by the concentration of the keywords and topics. These are all issues that voters are concerned with. While it is important for MPs to debate and raise bread and butter issues such as basic infrastructure, it also indicates a potential lack of new ideas in policy debates. There are also no global views and forward-looking policy suggestions. To improve this, each MP must have a dedicated research officer and there has to be a budget allocation for it. MPs should also make use of the research services through the Electronic Parliament Research Service (EPRS).

Although some MPs are often in the spotlight for their antics in politicking, the data has shown that only 6% of the total time is made up of MPs politicking and taking potshots at each other. The rest of the time is spent on policy debates. There needs to be public education on this situation to correct the perception that MPs only waste time in the parliament and not conduct meaningful debates.

Lastly, the data also indicate that the debate patterns are driven by the opposition MPs. Most of the themes had more involvement by MPs from the opposition compared to the MPs from backbenchers and government combined. One way to encourage more meaningful participation by MPs across both sides of the divide would be to develop a parliament tracker. The tracker will instil a sense of accountability among MPs and ensure that they are mindful of what they say in the parliament. This will lead to more fruitful and focused debates.

REFERENCES

Abdul Rahman, Z. (2019). Explaining the first year of Malaysian politics post-GE14 in four charts. Retrieved September 09, 2020, from https://www.malaymail.com/news/malaysia/2019/05/10/explaining-the-first-year-of-malaysian-politics-post-ge14-in-four-charts/1751437

Abdul Rahman, Z. (2019). Malays' confidence in politicians, lawmakers plunged over 2018, study shows. Retrieved September 09, 2020, from https://www.malaymail.com/news/malaysia/2019/01/03/malays-confidence-in-politicians-lawmakers-plunged-over-2018-study-shows/1708533

Abercrombie, G., & Batista-Navarro, R. T. (2018). 'Aye' or 'No'? Speech-level Sentiment Analysis of Hansard UK Parliamentary Debate Transcripts.

Ahmad, R., Carvalho, M., Rahim, R., Pfordten, D., & Wyhow, K. (2020). How effective was your MP in Parliament? Find out here. Retrieved September 09, 2020, from https://www.thestar.com.my/news/nation/2020/01/11/how-effective-was-your-mp-in-parliament-find-out-here

Akirav, O. (2019). Assessing the parliamentary activities of UK MPs. *British Politics, 15*(2), 201-225.

Gidengil, E., & Bastedo, H. (2014). Perceptions and Performance: How Do MPs Shape Up? *Canadian Parliamentary Review, 37*(2).

Lee, H. (2020). How Malaysia's Pakatan Harapan coalition failed to deliver, and what it needs to do in opposition. Retrieved September 09, 2020, from https://www.scmp.com/week-asia/opinion/article/3074913/how-malaysias-pakatan-harapan-coalition-failed-deliver-and-what

Merdeka Center. (2019). NEWS RELEASE 26 APRIL 2019: GETTING INTO ONE YEAR AFTER GE14: PM'S APPROVAL RATING AT 46%, GOVERNMENT AT 39%. Retrieved September 09, 2020, from https://merdeka.org/v2/download/news-release-26-april-2019-getting-into-one-year-after-ge14-pms-approval-rating-at-46-government-at-39/

Mohamad Ariff. M. Y., Roosme. H., Shad. S. F. (2020) Law, Principle and Practice in the Dewan Rakyat (House if Representatives) of Malaysia. Selangor, Malaysia: Thomson Reuters Asia Sdn Bhd.

Oh, E. (2019). Commentary: Why Prime Minister Mahathir Mohamad should set a timeline for handover. Retrieved September 09, 2020, from https://www.channelnewsasia.com/news/commentary/mahathir-mohamad-succession-anwar-ibrahim-azmin-ali-2020-when-12185310

Ojha, S., & Mishra, S. (2010). An analysis of effectiveness of parliamentary questions in the Queensland Parliament. In *Proceedings of the Australian Political Studies Association Conference 2010 - Connected Globe: Conflicting Worlds* (pp. 1-12). Queensland: Queensland University of Technology. Retrieved 2020.

Ong, M. (1976). The Member of Parliament and His Constituency: The Malaysian Case. *Legislative Studies Quarterly, 1*(3), 405. doi:10.2307/439505

PRS India. (2017, June 14). Top MPs by Parliamentary Performance. Retrieved September 09, 2020, from https://www.prsindia.org/media/media-updates/top-mps-by-parliamentary-performance

Razak, R. (2020). After registering new party Pejuang, Dr Mahathir insists won't use money to lure defectors. Retrieved September 09, 2020, from https://www.malaymail.com/news/malaysia/2020/08/19/after-registering-new-party-pejuang-dr-mahathir-insists-wont-use-money-to-l/1895370

Rheault, L., Beelen, K., Cochrane, C., & Hirst, G. (2016). Measuring Emotion in Parliamentary Debates with Automated Textual Analysis. *Plos One, 11*(12). doi:10.1371/journal.pone.0168843

Standing Orders of the Dewan Rakyat. (2001). Retrieved from https://www.parlimen.gov.my/images/webuser/peraturan_mesyuarat/PMDR-eng.pdf

Tham, J. (2019). Do MPs Actually Talk "Rubbish" In The Post-GE14 Dewan Rakyat? Retrieved September 09, 2020, from https://www.centre.my/post/what-do-mps-talk-about-the-most-in-the-post-ge14-dewan-rakyat

The World Factbook: Malaysia. (2018, February 01). Retrieved December 23, 2020, from https://www.cia.gov/library/publications/the-world-factbook/geos/my.html

World Bank. (2003). Parliaments that work: A conceptual framework for measuring parliamentary performance. Retrieved 2020, from https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwj32tDAptvrAhX5H7cAHduRA14QFjAAegQIAxAB&url=http://www1.worldbank.org/publicsector/bnpp/MeasuringParliamentaryPerf.doc&usg=AOvVaw3F5DbjCpADoQVpktrGtUbJ

APPENDIX

Overview of themes that were the least focused upon.

1. Technology

   Technology is the theme that is least mentioned based on our analysis and the most popular keyword in this category is IR 4.0. This is despite the launching of key initiatives such as "Industry4WRD: National Policy on Industry 4.0" by the Ministry of International Trade and Industry.

2. Climate and Environment

   Within the theme of climate and environment, the most prominent keyword that appeared the most was sustainability. Plastic waste was also a prominent issue raised in the Parliament. In November 2019, the Malaysian reached an agreement with the United Kingdom government for the UK to repatriate 42 containers of illegally imported plastic waste originating from the UK. These containers arrived at the Penang Port between March 2018 and March 2019. Upon closer scrutiny of the data, we observed that the MP who used the phrase "plastic waste" the most was actually the then Minister of Energy, Science, Technology, Environment and Climate Change. The usage frequency of this term by the Minister is in line with the fact that the Minister was in charge of discussions with the British High Commission to repatriate the plastic waste. From this theme, it can be said that parliaments usually discuss current issues.

3. Education

   With regards to the theme of education, scholarships was the most-talked about issue. Among the education-theme keywords tested, half of the occurrences was the word scholarship. This indicates that MPs were concerned about financial hardships of students and distribution of aid. With various scholarships awarded by different government agencies, it should come as no surprise that the distribution of recipients is up for contention in the parliament. The next two keywords that were most frequent were higher education and vernacular primary schools.

List of keywords used for each topic:

Word	Topic	Frequency
Sarawak	Sabah/Sarawak	8,142
School	Infrastructure	7,008
Sabah	Sabah/Sarawak	6,633
Rural area	Social	3,192
Hospital	Infrastructure	2,802
Islam	Religion	2,663
Villages	Social	2,415
City	Social	2,119
Housing	Infrastructure	1,793
China	International Relations	1,787
GST	Economy	1,712
India	Race/Ethnicity	1,457
Malay	Race/Ethnicity	1,369
Flood	Infrastructure	1,331
Electricity	Infrastructure	1,295
Elections	Politics	1,266
Clinic	Infrastructure	1,182
Corruption	Negative	1,084
ASEAN	International Relations	993
Water supply	Infrastructure	851
Bridge	Infrastructure	827

Orang asli	Race/Ethnicity	781
SST	Economy	732
Poverty	Economy	631
Internet	Infrastructure	616
Chinese	Race/Ethnicity	599
University	Infrastructure	587
Slander	Negative	496
Police station	Infrastructure	455
United States of America	International Relations	445
Mosque	Religion	429
Unemployment	Economy	385
Liar	Negative	346
Highways	Infrastructure	343
Telecommunication	Infrastructure	285
Stupid	Negative	253
National debt	Economy	222
GLC appointments	Politics	188
Scholarship	Education	185
Homeless	Social	162
Jawi	Religion	155
External countries	International Relations	145
RM1 trillion	Negative	140
Oil and gas	Economy	131

Fire station	Infrastructure	129
Robber	Negative	126
Urine	Negative	124
Higher education	Education	120
IR4.0	Technology	111
Digital economy	Technology	106
Crony	Negative	100
Sustainability	Environment	89
Christian	Religion	75
Hindu	Religion	73
National Type Schools	Education	70
Drains	Infrastructure	62
Plastic waste	Environment	56
Drone	Technology	55
Immigrants without permit	Social	53
Illegal immigrants	Social	44
Illegal logging	Environment	27
Recession	Economy	25
GDP increase	Economy	25
Air pollution	Environment	20
Kleptocrat	Negative	18
Buddhism	Religion	18
Import export	International Relations	16

Shouting (Action)	Negative	15
National budget	Economy	14
Robot	Technology	14
Sexist	Negative	13
Water pollution	Environment	12
Reeks of urine	Negative	12
Potholed roads	Infrastructure	11
Dong Zong	Race/Ethnicity	10
International border dispute	International Relations	9
Trains	Infrastructure	8
LGBTQ	Social	7
Recreational parks	Infrastructure	4
Toll	Infrastructure	3
Traffic jam	Infrastructure	2
Malay special rights	Race/Ethnicity	2
Labour dispute	Economy	0
Racial quota	Education	0
Sewerage	Infrastructure	0