

# **THE CONTRADICTION EFFECTS OF DIGITAL ACCESS AND LIFE SATISFACTION ON VOTING BEHAVIOURS: A RETROSPECTIVE LOOK AT THE 2008 MALAYSIAN GENERAL ELECTION**

**Ying-Yin Koay\***

*Universiti Tunku Abdul Rahman, Malaysia*

**Yoke-Kee Eng**

*Universiti Tunku Abdul Rahman, Malaysia*

**Chin-Yoong Wong**

*Universiti Tunku Abdul Rahman, Malaysia*

## **ABSTRACT**

This paper explores the relationship between life satisfaction and voting intention by analysing the 2008 General Election in Malaysia. The election was significant because of the high turnout rate since 1964 and the rise of digital media in political communication. The latter leads to the second objective of this paper: to investigate whether the presence of digital media reshapes voting behaviours across different levels of life satisfaction. Using the 6<sup>th</sup> wave of World Value Survey data of 1198 respondents with the Hierarchical Linear Regression Modelling, we show that unhappier voters are more likely to vote. However, by democratising access to information and lowering barriers to connect with voters via digital media, voting intention is levelled irrespective of the degree of life satisfaction. While happier voters pay more attention to the social economic issues and thus are more likely to react to news disseminated via digital media by voting, it is equally likely that unhappier voters provoked by negative news through digital media have greater intention to voice out by casting a vote too.

**Keywords:** Life satisfaction, voting intention; digital media, voting behaviour, general election.

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## **1. INTRODUCTION**

Though it may sound like a cliché, it remains true to claim that “man is by nature a political animal” because human being has an impulse toward a partnership with others (Aristotle, 1998). After all, feelings of satisfaction, contentment, and fulfilment cannot flourish on their own. Rather, life satisfaction can be better realised only when men and women form partnerships with others. Of all

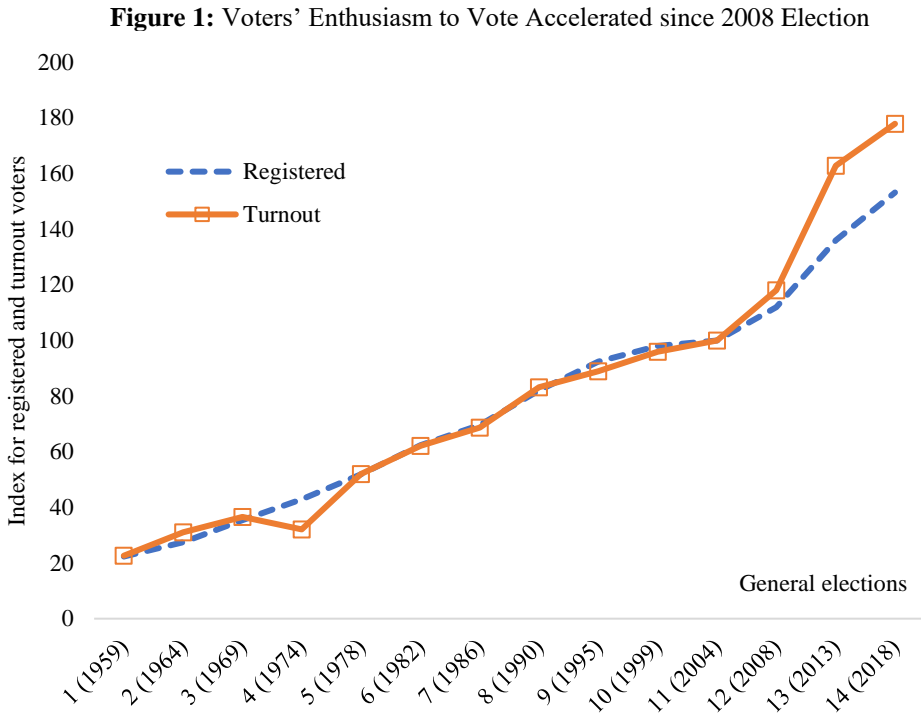
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\*Corresponding author: Faculty of Business and Finance, Universiti Tunku Abdul Rahman, Jalan Universiti, Bandar Barat, 31900 Kampar, Perak, Malaysia. Tel: +6054688888; E-mail: koayyy@utar.edu.my

the partnerships, political belongingness motivated by identical value perception and belief shall play no less important role in enriching life satisfaction.

While the earlier studies relating political engagement with life satisfaction are important, the vice versa is equally true. But as Ward (2019) has rightly pointed out, much less is known about the effects of life satisfaction on political behaviour, for which we believe is too consequential to ignore seeing that political outcomes could shape policy and development. Against this background, the first goal of our paper is to explore how life satisfaction impacts political participation, particularly voting intention, by drawing on Malaysian experience.

If we look at Figure 1 that shows the indices of the numbers of registered and turnout voters in Malaysian general elections over the years, with general elections in 2004 as base case, general elections in 2008 was apparently a watershed moment in Malaysian political landscape. The enthusiasm to vote, as shown by the steeper “turnout index”, for the first time in the history of Malaysian election since the Independence, has outpaced the eagerness to register as voters. 2008 General Election became a “political tsunami” because Barisan Nasional (BN) coalition as the hegemonic ruling party failed to obtain two-third majority for the first time in the parliament since the Independence (Brown, 2008). Enthusiasm to vote kept accelerating since then, and the rest is history.



**Source:** Arah Aliran Malaysia: Penilaian Pilihan Raya.  
**Note:** 2004 = 100.

What drives the break in the enthusiasm to vote in 2008? Can it be attributed to voters' frustrations about their life? In this respect, the 6th wave of the World Value Survey data (2011-2012) is so interestingly relevant to addressing our question as it is uniquely positioned between 2008 General Election and 2013 General Election, which witnesses an even more enthusiastic voting intention (see Figure 1).

Previewing the findings, our results show that life satisfaction and voting intention go in an opposite direction: unhappier individuals are more likely to cast a vote. Although the finding is contradictory to some recent studies that show the otherwise (see, for instance, Ward, 2019, 2020; Cheng et al. 2023, and the earlier Flavin and Keane, 2012), it is not unthinkable.

In the classic Hirschman (1970), the idea of exit, voice, and loyalty are useful in understanding the relationships between nation states and their citizens. Loyalty to the incumbents can be bought if economic stability can be guaranteed. In other words, economic prosperity legitimizes the ruling party. That explains why happy voters who benefit from the prosperity are more likely to vote for the incumbents (see, for instance, Liberini et al., 2017; Ng et al., 2017). At the same time, when exit via emigration becomes an option, particularly for endowed individuals, voicing out with votes become less tenable for unhappy citizens. That explains those findings wherein unhappy voters are less likely to vote (as they can just exit).

But for those with “nowhere else to go”, usually the majority, instead of being marginalised, their voices can only be heard through the ballots. This explains our first set of findings. What makes 2008 General Election unique was that the growing enthusiasm to vote coincided with the emergence of internet and social media in politics. Will unhappy Malaysian voters with access to the digital media lost interest in elections when they can “exit” from their grievances into the more entertaining digital world (Gavazza et al., 2019)? Or could it become easier for political actors to mobilise voters, both happier and unhappier, by directly connecting to them via digital media, feeding them news and thoughts?

This brings us to the second set of our findings. The second goal of our paper is to address the question whether digital media amplifies or mutes the importance of individual life satisfaction in voting intention. Interestingly, we find that voting enthusiasm is levelled across different degrees of life satisfaction once the role of digital media is considered. In plain words, both happy and unhappy voters are equally likely to vote when they all have access to digital media. One possible explanation is that, by democratising access to and sources of information, voters become more conscious of the national social-economic issues, tilting voting preferences away from a pure consideration of individual life satisfaction.

Although we are cautious about the possibility of overstating the benign effect of digital media on voting behaviours, especially given the recent rising political polarisation fuelled by the spread of fake news and disinformation via digital media, we believe that our empirical findings contribute to the expanding scientific boundary of politics and happiness, and the role of social media on politics (see, for instance, Zhuravskaya et al., 2020), particularly for the case of Malaysia.

This paper is structured as follows. In Section 2, we review the existing literature pertaining to the two main goals of the paper. In Section 3, we discuss the data and methodology used in the study.

We analyse and explain our findings with robustness checks in Section 4, followed lastly by a summary for policy implications.

## **2. LITERATURE REVIEW**

### ***2.1. The Relationships Between Life Satisfaction and Voting Intention***

There is no lack of literature supporting the hypothesis that happier citizens are more active in political participation (see, for instance, Zhong & Chen (2002) for China, Flavin et al (2014) for the United States, and Liberini et al. (2017) for the United Kingdom). As a further, Ward (2020) illustrated that the vote share of the incumbent party is very sensitive to the voters' subjective wellbeing after controlling for macroeconomic factors such as economic growth, unemployment rate, and inflation rate. Hence, Liberini et al. (2017) suggested that future studies on voting intention or preference should take subjective wellbeing into consideration.

On the other hand, Dolan et al. (2008), by drawing on the U.K experience, claimed that life satisfaction does not directly affect the voting intention, but indirectly via its interaction with conservative political affiliation. The more recent Ward et al. (2020) found that individual-level life satisfaction, on top of country-level future life evaluation, is negatively associated with the vote share over Republican baselines at the 2012 US election. They concluded that subjective wellbeing is a crucial high-level marker of (un)happiness and shall be regularly considered along with economic explanations on electoral choice.

Turning to the case of Malaysia, Ng et al. (2017) concluded that Malaysians who are more satisfied with their life prefer to vote for the ruling party. And such happiness effect is even more consequential than the ethnic voting impact. However, their work does not consider the role of digital media in the relationship between life satisfaction and voting intention. We take a step back to ask if life satisfaction influences voting intention, not just party preference. At the same time, we take a step forward to investigate the role of digital media on voting intention.

### ***2.2. The Impacts of Digital Media on Voting Intention***

The literature related to the role of internet in shaping voting behaviours has been growing since the last decade (see, for instance, Zhuravskaya et al., 2020 for a comprehensive review). The digital media allows voters to access more information about national affairs, political party campaign, and the details of candidates (Spierings & Jacobs, 2014).

Moreover, the digital media such as Social Networking Sites (SNS) and Mobile Instant Messaging Services (MIMS) creates a platform to post, discuss, or convince people to vote (Mosca & Quaranta, 2021; Dogra & Kaur, 2021). Besides the direct effects of digital media on political participation, Spierings and Jacobs (2014) found that the interaction between online social media usage and the number of followers on a candidate's social media account is significant in driving preferential voting.

In Malaysia, Miner (2015), for example, by using data from the 2004 and 2008 elections, showed that growth in the penetration of broadband internet led to a substantial decline in the political support for the incumbent coalition, resulting in its failure to secure two-third majority in the parliament (see, also, Kasim & Sani, 2016, Gomez, 2014; Willnat et al., 2013).

### ***2.3. Catalysing Digital Media for Voting Enthusiasm: A Snapshot of Malaysian Experience***

Likewise, in Malaysia, internet and social media have reshaped the political landscape. Looking back the political reformation in Malaysia since GE-12, the digital media has played a role as ‘soft weapon’ in the change of government via election. The media freedom was strictly controlled by the Malaysian government in 1980’s and 1990’s. Most of the news that might portray the government negatively would be filtered out before the broadcasting or publishing (Shehab, 2022; Anuar, 2005). By doing so, Malaysians were less exposed to the economic and political issues in the nation.

However, this practice has been changed by the presence of digital media such as internet, smartphones, and emails where it is hardly controlled by the government. Therefore, the digital media not only improves the transparency of information and news but also mobilises news in Malaysia (Lim & Teoh, 2022; Kasim & Sani, 2016). The popularity and effectiveness of digital media in the general election are due to its characteristics – trendy, cheap and easy to access. Therefore, political parties use them to promote their candidates, while voters rely on them for political news.

The opposition coalition (formally known as Pakatan Rakyat, PR) was the first party that promoted and campaigned their leaders and candidates for 2008 General Election via digital media. The significant vote swung in 2008 from the ruling Barisan Nasional (BN) coalition to the opposition coalition has made BN coalition realise the importance of digital media in influencing the voting results. Therefore, both BN coalition and opposition coalitions took the digital media seriously as a new platform to promote their parties in the following general elections (Gomez, 2014; Agustino & Mohamed, 2015).

## **3. DATA AND METHODOLOGY**

### ***3.1. Data***

This study draws upon the survey data from the 6<sup>th</sup> wave of the World Value Survey (WVS) for Malaysia in 2011-2012 that involves 1198 respondents. The WVS data has widely been used by scholars, government officials, journalists, students, and international organisations from different fields of study (Kim et al., 2019; Davis et al., 2021). The 2011-2012 data is used to reflect post 2008 Malaysian General Election, after which the turnout rate continues to increase steadily till the 2018 General Election.

One of the reasons we use the WVS data is that the sampling was selected based on the probability proportional to nationally presented size sampling technique (Inglehart et al., 2018). All the households in the sample frame were divided into 13 states and the Federal of Kuala Lumpur. At the same time, in each stratum the second level of stratification was made by type of settlement

(urban/rural) based on the urban-rural proportions at the state level. Samples in each stratum were then further stratified by race, gender, and age to reflect the sociodemographic characteristic in Malaysia.

For instance, there were 11.8% of Malaysians staying in Johor. So, 11.8% of the respondents from Johor was selected. Then, 110 respondents were from urban areas while 40 respondents were from rural areas in Johor (see Table 1). The allocation of questionnaires was assigned based on the population percentage in each state for both urban and rural areas as shown in Table 1. Face-to-face interviews were conducted at the respondent’s home or place of residence, while phone interviews were for remote areas.

**Table 1:** The Allocation of Respondents (Questionnaire) in Each State of Malaysia

State	Demographics		Percentage		Total Population ('000)		Questionnaires Allocated		
	% of Total Malaysian population	Total population ('000)	Urban	Rural	Urban	Rural	Urban	Rural	Total
Johor	11.8	3375.98	71.9	28.1	2,427	949	110	44	154
Kedah	6.9	1974.09	64.6	35.4	1,275	699	58	32	90
Kelantan	5.4	1544.94	42.4	57.6	655	891	30	41	71
Melaka	2.9	829.69	86.5	13.5	718	112	33	5	38
Negeri Sembilan	3.6	1029.96	66.5	33.5	685	345	31	16	47
Pahang	5.3	1516.33	50.5	49.5	766	751	36	34	70
Perak	8.3	2374.63	69.7	30.3	1,655	720	75	33	108
Perlis	0.8	228.88	51.4	48.6	118	111	5	6	11
Penang	5.5	1573.55	90.8	9.2	1,429	145	65	8	73
Selangor	19.3	5521.73	91.4	8.6	5,047	475	229	22	251
Terengganu	3.7	1058.57	59.1	40.9	626	433	28	21	49
Sabah	11.3	3232.93	54.0	46.0	1,746	1,487	78	69	147
Sarawak	8.7	2489.07	53.8	46.2	1,339	1,150	61	53	114
Federal	5.9	1687.99	100	0	1,688	0	77	0	77
Total	100	28,438			20,173	8,265	916	384	1,300

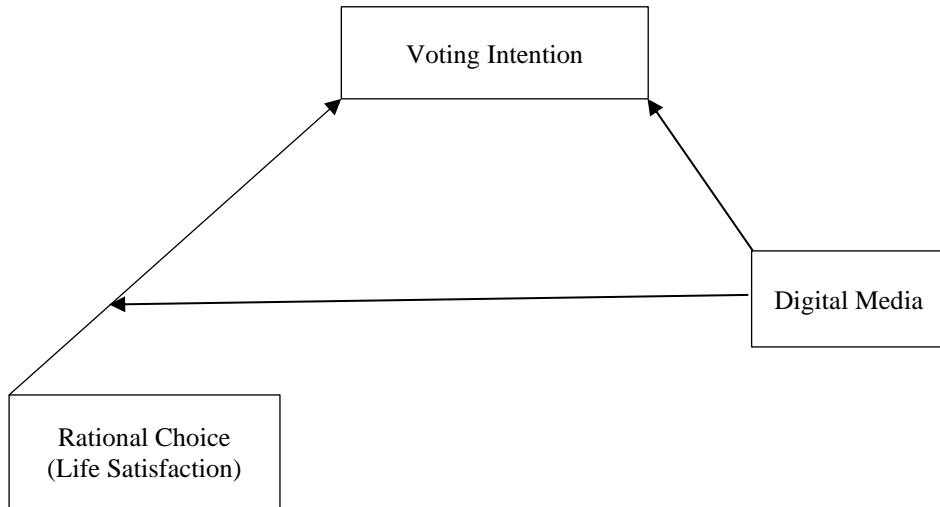
Source: Inglehart et al., 2018.

### 3.2. Theoretical Framework

Based on the current literature, we resort to rational choice voting theory as illustrated in Figure 2 to comprehend the relationship between life satisfaction and voting intention in the presence of digital media as sources of news.

The rational choice of voting theory, developed by Downs (1957) and expanded by Riker and Ordeshook (1968), has long been used in explaining if voters choose to vote or not to vote (Blais, 2000). The main argument of this theory is simple which it claims that voters decide to vote if the benefit of voting is greater than the cost, and vice versus. Hence, some political scholars interpret that the rational voters are selfish in the sense that they only vote for their self-interest (Blais, 2000). Therefore, this study argues that life satisfaction is one of the self-interests that motivate Malaysians to vote.

**Figure 2:** A Framework of Rational Choice Voting



Besides, the rational theory of voting also states that voters are under the condition of imperfect information whereby voters are not well-informed about the political issue in the nation including the information about the candidacy. The emergence of digital media has improved the dispersion of information in favourable of a rational voting behaviour throughout the last decade (see, for instance, Zhuravskaya et al., 2020 for a comprehensive review). Hence, this study presumes that digital media helps provide more information and thus amplifies the effect of life satisfaction on voting intention.

### 3.3. Model and Hypotheses

The voting intention model we use for estimation is as follows:

$$VOTING_{ij} = \varphi + \gamma_1 LIFE_{ij} + \gamma_2 DM_{ij} + \gamma_3 LIFE_{ij} \times DM_{ij} + \vartheta z_{ij} + \omega_j + \varepsilon_{ij} \quad (1)$$

where  $VOTING_{ij}$  represents the voting intention as a binary response variable. It is obtained through the question “Have you ever voted before in the General Election?”, 1 is yes, 0 otherwise. The subscript  $i$  refers to  $i$ -th respondent while  $j$  represents the respondent from  $j$ -th state.

$LIFE_{ij}$ , as one of the main independent variables, indicates the level of life satisfaction of respondent  $i$  from state  $j$ . This variable is obtained through the question, “All things considered, how satisfied are you with your life as a whole these days?” on a scale of 1 (completely dissatisfied) to 10 (completely satisfied). Even though some past empirical studies have shown that people with higher life satisfaction tend to vote (Liberini et al., 2017), we hypothesise that  $\gamma_1 < 0$ , where happier voters are less likely to cast the vote. This serves the first goal of this paper.

$DM_{ij}$  denotes the use of digital media as a source of information. The respondents are asked “People learn what is going on in this country and the world from various sources. For each of the following sources (mobile phone, internet, or email), please indicate whether you use it to obtain information”.  $DM$  is coded as 1 if the respondent used at least one of the resources (mobile phone, internet, or email) as news resources, 0 otherwise.

Based on the mixed results found in the literature reviewed in Section 2, we are open to any value of  $\gamma_2$ :  $\gamma_2 > 0$  if digital media helps lowering the barrier to information and cultivating a sense of political belonging that stimulate voting intention,  $\gamma_2 \rightarrow 0$  if voters’ attention is redirected towards entertainment and soft news, and  $\gamma_2 < 0$  if voters flooded with adverse political news and information are disappointed and discouraged from voting.

We also test the life-satisfaction channel of digital media effect on voting intention. To do so, Eq. (1) allows an interaction term between life satisfaction and digital media,  $LIFE_{ij} \times DM_{ij}$ . Likewise, we are open to the value of  $\gamma_3$ , as it is equally probable that happier voters pay more attention to the social economic issues and thus are more likely to react to news disseminated via digital media by voting  $\gamma_3 > 0$ , or that unhappier voters are more likely to be provoked by negative news through digital media and thus have greater intention to voice out by casting a vote  $\gamma_3 < 0$ .

$z_{ij}$  is a vector of control variables that capture the characteristics perceived to be defining in Malaysian politics, whereas  $\vartheta$  is a vector of parameters for control variables. The control variables include individual economic wellbeing (*FINANCE*), at least have a child (*CHILD*) to proxy living burden and weigh in expectation about the future of Malaysia, political interest (*INTEREST*), the confidence toward the political party (*PARTY*), the preferable political party which is BN coalition (*BN*), civil duty as Malaysian (*MALAYSIAN*), age of respondent (*AGE*), age squared of the respondent (*AGE squared*), education level (*EDUCATION*), and the race (*MALAY*).

*FINANCE* proxies the economic voting effect by assuming that people tend to vote if a performing economy is going to reward the incumbent (Liberini et al., 2017). Ong (2020) found that Urban Malaysians with less political interest tend to be absent from political participation and thus we expect that *INTEREST* is positively related to *VOTING*. According to Nizar and Bakar (2020), Malaysians’ voting behaviour is positively affected by education and ethnic identity. Moten (2011) claimed that the turnout rate from the young and old age groups is higher than the middle age group. Hence, we formalise the U-shape relationship between age and voting intention with *AGE squared*. Lastly, we also assume that Malaysians not only vote for their interest but other’s wellbeing such as their children (*CHILD*) and because of their civic duty as a Malaysian. Table 2 displays the details of all variables in Eq. (1).



**Table 2: The Details of Variables**

Variable	Scale	WVS code	WVS Questions	Some past studies that using the same question for the variable
<i>VOTING</i>	1 (vote before in the General Election), 0 otherwise.	V227	“When elections take place, do you vote always, usually or never?” (p.21).	Sulemana & Agyapong (2019), Antonietti et al. (2016)
<i>LIFE</i>	1(completely dissatisfied) - 10 (completely satisfied)	V23	“All things considered, how satisfied are you with your life as a whole these days?” (p.2)	Liberini et al. (2017), Ng et al. (2017)
<i>DM</i>	1(obtain information from mobile phone/ internet/ email), 0 otherwise	V221, V222, V223	“People learn what is going on in this country and the world from various sources. For each of the following sources (mobile phone, internet, or email), please indicate whether you use it to obtain information.” (p.21)	Goidel et al. (2017), Holbert et al. (2017)
<i>FINANCE</i>	1 - Spend savings and borrow 2 - Spend some savings 3 - Just get by 4 - Save money	V237	“During the past year, did your family (read out and code one answer): 1 - Spend savings and borrow; 2 - Spend some savings; 3 - Just get by; and 4 – Save money.” (p.23)	Lin et al. (2013), Chong & Gradstein (2015)
<i>CHILD</i>	1 (yes), 0 otherwise	V58	“Have you had any children?”	Ercolano et al. (2014), Ng et al. (2017)
<i>INTEREST</i>	1 (not at all interested) - 4 (very interested)	V84	“How interested would you say you are in politics?” (p.9)	Immerzeel & Pickup (2015), Negri (2019)
<i>PARTY</i>	1 (not at all) - 4 (a great deal)	V116	“How confidence you have in them?” (p.11)	Alkhalwaldeh et al. (2016)
<i>BN</i>	1 (yes, I will vote for BN), 0 otherwise	V228	“Would you vote for BN if there is any election tomorrow?” (p.22)	Ng et al. (2017)
<i>MALAYSIAN</i>	1 (strongly disagree) - 4 (strongly agree)	V214	“I see myself as part of the Malaysia nation.” (p.21)	
<i>AGE</i>	In years	V242	Age of respondent	Ng et al. (2017), Negri (2019)
<i>AGE squared</i>	Age x age (In years)	-	Age squared of respondent	Negri (2019)
<i>EDUCATION</i>	1 (no formal education)- 9 University-level with degree	V248	“What is the highest educational level that you have attained?” (p.25)	Ng et al. (2017)
<i>MALAY</i>	1 (Malay), others 0	V254	What is the race?	Ng et al. (2017)

*Source:* Inglehart et al., 2018.

### 3.4. The Hierarchical Linear Modelling (HLM) Approach

Voter's preference varies across the state (Khalid & Awang, 2008). For example, voters in Kelantan and Terengganu prefer to vote for the Pan-Malaysian Islamic Party (PAS) while voters from Penang show favour towards the Democratic Action Party (DAP). Therefore, Eq. (1) should be regressed by taking into account state clustering. As such, Eq. (1) is regressed using the hierarchical linear modelling (HLM) which allows independent variables to be obtained from different levels of a hierarchical structure, with at least one random effect above individual level (level 1) (Raudenbush & Bryk, 2002; Garson, 2013).

All the independent variables in Eq. (1) are considered as the factors that influence *VOTING* at an individual level (level 1) while the dummy variables for each state in Malaysia are the factors from state level (level 2). With HLM, we can provide a systematic analysis of how covariates measured at individual and the state level influence *VOTING*, and how the joint effect among covariates measured at these two different levels affect *VOTING* (Raudenbush & Bryk, 2002). It is assumed that there exists a latent continuous variable *VOTING\** underlying *VOTING*. The binary response *VOTING* is observed directly while *VOTING\** is not.

Technically,  $VOTING^* > 0$  if  $VOTING = 1$  while  $VOTING^* \leq 0$  if  $VOTING = 0$ .  $\omega_j$  in Eq. (1) is a random effect that captures the random variation at the state level (level 2), and  $\varepsilon_{ij}$  is the random effect at individual level (level 1). The parameters for the random effects are  $E(\omega_j) = E(\varepsilon_{ij}) = 0$ ,  $var(\omega_j) = \delta_\omega^2$ ,  $var(\varepsilon_{ij}) = \delta_\varepsilon^2$ ,  $cov(\omega_j, \varepsilon_{ij}) = 0$ , and  $cov(\omega_j, \omega_{i \neq j}) = 0$ . Condition on the random effect  $\omega_j$  at the state level can be derived from Eq. (1) if  $\varepsilon_{ij}$  follows a standard logistic distribution. If the  $\omega_j$  is observed, the conditional density function for the  $j$ -th state can be written as Eq. (2).

$$f(VOTING_j | LIFE_j, DM_j, LIFE_j \times DM_j, z_j, \omega_j) = \prod_{i=1}^{\pi_j} \frac{\exp(VOTING_{ij})}{1 + \exp(\gamma_1 LIFE_{ij} + \gamma_2 DM_{ij} + \gamma_3 LIFE_{ij} \times DM_{ij} + \vartheta z_{ij} + \omega_j)} \quad (2)$$

## 4. RESULTS AND DISCUSSION

### 4.1. Descriptive Statistics and Correlation Analysis

We employ the 6th wave of WVS data with 1198 respondents aged from 21 to 80 years old. The age structure is coherent with the eligible voting age in Malaysia by then, which was 21 years old and above. To well reflect the real voting pattern in Malaysia, we also integrate state clustering into the analysis as the voters' voting preference varies across states (Khalid & Awang, 2008). Therefore, the empirical analysis on *VOTING* is obtained via hierarchical linear modelling (HLM). The details of state clustering are shown in Table 3.

**Table 3:** Descriptive Statistics for States for *VOTING* Modelling

State ID	State	Frequency	Percentage	Cumulative Percentage
1	Wilayah Persekutuan	72	6.010	6.010
2	Sembilan	45	3.756	9.766
3	Melaka	34	2.838	12.604
4	Kelantan	65	5.426	18.030
5	Pahang	65	5.426	23.456
6	Perlis	11	0.918	24.374
7	Kedah	85	7.095	31.469
8	Sarawak	87	7.262	38.731
9	Sabah	151	12.604	51.335
10	Pulau Pinang	67	5.593	56.928
11	Perak	101	8.431	65.359
12	Selangor	235	19.616	84.975
13	Terengganu	44	3.673	88.648
14	Johor Bahru	136	11.352	100
Total		1198	100	

Source: Inglehart et al., 2018.

The regressand, *VOTING*, is a binary response variable, the respondent who has voted before is coded as 1 and 0 otherwise. There are 965 respondents (80.551%) from this sample who have claimed that they have voted before in the general elections in Malaysia. The focus of this study is to examine the impacts of life satisfaction (*LIFE*), the use of digital media as a source of information (*DM*), and the interaction between *LIFE* and *DM* (*LIFE*×*DM*) on *VOTING*. Based on Table 4 that displays the descriptive statistics for the variables used, many of the respondents are quite satisfied with their lives where the average point for *LIFE* is 7.154 out of 10 points while 75.30% of them are using digital media as information resources.

**Table 4:** Descriptive Statistics for *VOTING* Modelling

Variable	Observation	Mean	Standard Deviation	Min	Max
<i>VOTING</i>	1198	0.806	0.396	0	1
<i>LIFE</i>	1198	7.154	1.807	1	10
<i>DM</i>	1198	0.753	0.431	0	1
<i>FINANCE</i>	1198	3.323	0.731	1	4
<i>CHILD</i>	1198	0.731	0.444	0	1
<i>INTEREST</i>	1198	2.422	0.792	1	4
<i>PARTY</i>	1198	2.649	0.769	1	4
<i>BN</i>	1198	0.653	0.476	0	1
<i>MALAYSIAN</i>	1198	3.515	0.561	1	1
<i>AGE</i>	1198	41.788	13.060	21	80
<i>EDUCATION</i>	1198	5.002	1.942	1	9
<i>MALAYS</i>	1198	0.679	0.467	0	1

Table 5a and Table 5b show a simple correlation analysis among the variables used in the analysis. We find that *LIFE* is positively correlated to the *VOTING* which implies that people with higher life satisfaction tend to vote, and vice versa, though it is not significant. On the other hand, *DM* is significantly and negatively associated with *VOTING*. Besides, the correlations between *VOTING* and most of the control variables (*CHILD*, *MALAYS*, *AGE*, *PARTY*, *INTEREST*, *BN*, and *MALAYSIAN*) are positive and significant. We also find that *EDUCATION* is negatively and

significantly correlated with *VOTING*, while *FINANCE* shows a positive but insignificant association. More importantly, all the absolute values of correlation coefficients are less than 0.80. In this respect, our regression analysis is free from the multicollinearity problem typically found in the survey data.

**Table 5a:** Correlation Analysis for *VOTING* Modelling

Variables	VOTING	LIFE	DM	FINANCE	KID	INTEREST
<i>VOTING</i>	1.000					
<i>LIFE</i>	0.029	1.000				
<i>DM</i>	-0.096***	0.016	1.000			
<i>FINANCE</i>	0.050*	0.027	-0.012	1.000		
<i>CHILD</i>	0.344***	0.046	-0.094***	-0.013	1.000	
<i>INTEREST</i>	0.131***	0.065**	0.119***	-0.007	0.054*	1.000
<i>PARTY</i>	0.109***	0.126***	-0.065**	-0.021	0.074**	0.238***
<i>BN</i>	0.080***	0.092***	0.001	0.008	0.060**	0.098***
<i>MALAYSIAN</i>	0.090***	0.070**	-0.040	-0.005	0.023	0.141***
<i>AGE</i>	0.382***	0.020	-0.204***	-0.071**	0.536***	0.074**
<i>EDUCATION</i>	-0.134***	0.047*	0.274***	0.042	-0.286***	0.010
<i>MALAYS</i>	0.064**	0.071**	-0.017	0.008	0.111***	0.166***

**Table 5b:** Correlation Analysis for *VOTING* Modelling

Variables	PARTY	BN	MALAYSIAN	AGE	EDUCATION
VOTING					
LIFE					
DM					
FINANCE					
CHILD					
INTEREST					
PARTY	1.000				
BN	0.195***	1.000			
MALAYSIAN	0.181***	0.098***	1.000		
AGE	0.067**	0.063**	0.042	1.000	
EDUCATION	-0.067**	-0.030	0.018	-0.429***	1.000
MALAYS	0.185***	0.159***	0.135***	0.003	-0.091***

**4.2. Robustness Checking**

To obtain a robust result, we start regress Eq. (1) with only life satisfaction and other control variables with different model specifications as shown in Table 6. The results show that *LIFE* itself does not affect *VOTING*. These insignificant results remain even after including the *DM* variable in Table 7. Not just the *LIFE* but *DM* are also negatively and insignificantly related to *VOTING*. However, the inclusion of the interaction term (*LIFE X DM*) into the models makes the analysis results better in terms of the significance of the regressors. Nevertheless, the HLM with fixed and random intercept approach (Column (3)) provides the best results as the ICC is 0.114 and it is significant at a 5% significance level. This means that the intercepts across the state clusters are different while the slope of regressors on *VOTING* across the state clusters are same. Therefore, the following analysis is made based on the results in Column (3) of Table 8.

**Table 6:** LIFE and Probability of VOTING (Scale = 1 and 0)

Dependent variable: <i>VOTING</i>	(0)	(1)	(2)	(3)	(4)
	Null model	Fixed intercept (logit model)	Fixed intercept (logit with state dummies)	Fixed and random intercept	Random intercept and random slope
<i>LIFE</i>	-	<b>-0.033</b>	<b>-0.047</b>	<b>-0.045</b>	<b>0.011</b>
		<b>(0.056)</b>	<b>(0.061)</b>	<b>(0.050)</b>	<b>(0.075)</b>
<i>AGE</i>	-	0.256***	0.308***	0.298***	0.297***
		(0.028)	(0.030)	(0.044)	(0.044)
<i>AGE squared</i>	-	-0.002***	-0.003***	-0.002***	-0.002***
		(0.000)	(0.000)	(0.000)	(0.000)
<i>INTEREST</i>	-	0.306**	0.306*	0.314***	0.313***
		(0.145)	(0.168)	(0.118)	(0.119)
<i>PARTY</i>	-	0.263**	0.235**	0.235*	0.232*
		(0.126)	(0.105)	(0.120)	(0.122)
<i>FINANCE</i>	-	0.268*	0.233*	0.253*	0.257**
		(0.141)	(0.131)	(0.119)	(0.119)
<i>MALAYSIAN</i>	-	0.238	0.400**	0.377**	0.366**
		(0.156)	(0.203)	(0.162)	(0.164)
<i>CHILD</i>	-	0.474	0.365	0.381*	0.380*
		(0.024)	(0.026)	(0.038)	(0.038)
<i>EDUCATION</i>	-	0.039	0.049	0.047	0.053
		(0.046)	(0.050)	(0.0.05)	(0.051)
<i>MALAY</i>	-	0.125	0.273	0.247	0.283
		(0.211)	(0.232)	(0.202)	(0.206)
<i>BN</i>	-	0.156	0.171	0.168	0.178
		(0.206)	(0.189)	(0.189)	(0.191)
Constant	1.632***	-8.490***	-10.448***	-9.503***	-9.906***
	(0.164)	(0.973)	(0.979)	(1.209)	(1.239)
<b>Random-effects parameters</b>					
Constant	0.237**	-	-	0.443**	0.027
	(0.128)	-	-	(0.221)	(0.032)
LIFE	-	-	-	-	0.735
					(1.271)
Covariance (Constant, LIFE)	-	-	-	-	-0.114
					(0.194)
Likelihood Ratio test	-	-	-	-	3.800
[P-value]	-	-	-	-	[0.1495]
ICC	0.053**	-	-	0.118**	0.183
	(0.027)	-	-	(0.052)	(0.258)

Note: Robust Standard errors in parentheses, \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

**Table 7: LIFE, DM, and Probability of VOTING (Scale = 1 and 0)**

Dependent variable: <i>VOTING</i>	(1)	(2)	(3)	(4)
	Fixed intercept (logit model)	Fixed intercept (logit with state dummies)	Fixed and random intercept	Random intercept and random slope
<i>LIFE</i>	<b>-0.030</b> (0.057)	<b>-0.046</b> (0.062)	<b>-0.043</b> (0.050)	<b>0.016</b> (0.076)
<i>DM</i>	<b>-0.348</b> (0.302)	<b>-0.278</b> (0.278)	<b>-0.310</b> (0.241)	<b>-0.350</b> (0.244)
<i>AGE</i>	0.258*** (0.027)	0.309*** (0.030)	0.299*** (0.044)	0.297*** (0.044)
<i>AGE squared</i>	-0.002*** (0.000)	-0.003*** (0.000)	-0.003*** (0.000)	-0.002*** (0.000)
<i>INTEREST</i>	0.326** (0.150)	0.328** (0.179)	0.338*** (0.120)	0.341*** (0.121)
<i>PARTY</i>	0.253** (0.123)	0.231** (0.105)	0.229* (0.128)	0.226* (0.131)
<i>FINANCE</i>	0.267* (0.139)	0.240* (0.129)	0.259** (0.119)	0.264** (0.119)
<i>MALAYSIAN</i>	0.225 (0.156)	0.392* (0.205)	0.367** (0.162)	0.353** (0.164)
<i>CHILD</i>	0.479 (0.310)	0.368 (0.349)	0.385* (0.225)	0.380* (0.227)
<i>EDUCATION</i>	0.056 (0.048)	0.063 (0.054)	0.062 (0.052)	0.070 (0.052)
<i>MALAY</i>	0.123 (0.209)	0.272 (0.221)	0.245 (0.203)	0.283 (0.206)
<i>BN</i>	0.169 (0.206)	0.182 (0.189)	0.180 (0.190)	0.192 (0.192)
Constant	-8.326*** (0.965)	-10.332*** (0.976)	-9.379*** (1.214)	-9.781*** (1.243)
<b><u>Random-effects parameters</u></b>				
Constant	-	-	0.430** (0.215)	0.028 (0.033)
<i>LIFE</i>	-	-	-	0.727 (1.362)
Covariance (Constant, <i>LIFE</i> )	-	-	-	-0.119 (0.198)
Likelihood Ratio test	-	-	-	4.220
[P-value]	-	-	-	[0.1212]
ICC	-	-	0.115** (0.051)	0.181 (0.262)

*Note:* Robust Standard errors in parentheses, \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

**Table 8:** Role of *LIFE* on the Probability of *VOTING* (Scale = 1 and 0) with Condition on *DM*

	(1)	(2)	(3)	(4)
Dependent variable: <i>VOTING</i>	Fixed intercept (logit model)	Fixed intercept (logit with state dummies)	Fixed and random intercept	Random intercept and random slope
<i>LIFE</i>	-0.179 (0.122)	-0.181 (0.121)	<b>-0.180*</b> (0.097)	-0.128 (0.112)
<i>DM</i>	-1.806 (1.197)	-1.608 (1.276)	<b>-1.660*</b> (0.855)	-1.818** (0.853)
<i>LIFE X DM</i>	0.206 (.0177)	0.186 (0.190)	<b>0.189*</b> (0.113)	0.208* (0.114)
<i>AGE</i>	0.261*** (0.026)	0.312*** (0.031)	<b>0.301***</b> (0.044)	0.302*** (0.044)
<i>AGE squared</i>	-0.002*** (0.000)	-0.003*** (0.000)	<b>-0.003***</b> (0.000)	-0.003*** (0.000)
<i>INTEREST</i>	0.332** (0.148)	0.334* (0.176)	<b>0.344***</b> (0.120)	0.343*** (0.121)
<i>PARTY</i>	0.259** (0.120)	0.235** (0.104)	<b>0.234*</b> (0.128)	0.231* (0.131)
<i>FINANCE</i>	0.281** (0.134)	0.252** (0.125)	<b>0.271**</b> (0.119)	0.276** (0.120)
<i>MALAYSIAN</i>	0.219 (0.155)	0.388* (0.204)	<b>0.363**</b> (0.162)	0.345** (0.164)
<i>CHILD</i>	0.484 (0.310)	0.367 (0.349)	<b>0.386*</b> (0.225)	0.388* (0.227)
<i>EDUCATION</i>	0.051 (0.048)	0.058 (0.056)	<b>0.058</b> (0.052)	0.064 (0.052)
<i>MALAY</i>	0.122 (0.211)	0.271 (0.223)	<b>0.243</b> (0.203)	0.288 (0.206)
<i>BN</i>	0.163 (0.200)	0.178 (0.185)	<b>0.175</b> (0.190)	0.188 (0.192)
Constant	-7.346*** (1.389)	-9.437*** (1.071)	<b>-8.482***</b> (1.342)	-8.841*** (1.359)
<b>Random-effects parameters</b>				
Constant	-	-	<b>0.424**</b>	0.030
	-	-	<b>(0.213)</b>	(0.034)
<i>LIFE</i>	-	-	-	0.710
	-	-	-	(1.279)
Covariance (Constant, <i>LIFE</i> )	-	-	-	-0.123
	-	-	-	(0.201)
Likelihood Ratio test	-	-	-	4.750
[P-value]	-	-	-	[0.090]
ICC	-	-	<b>0.114**</b>	0.177
	-	-	<b>(0.051)</b>	(0.263)

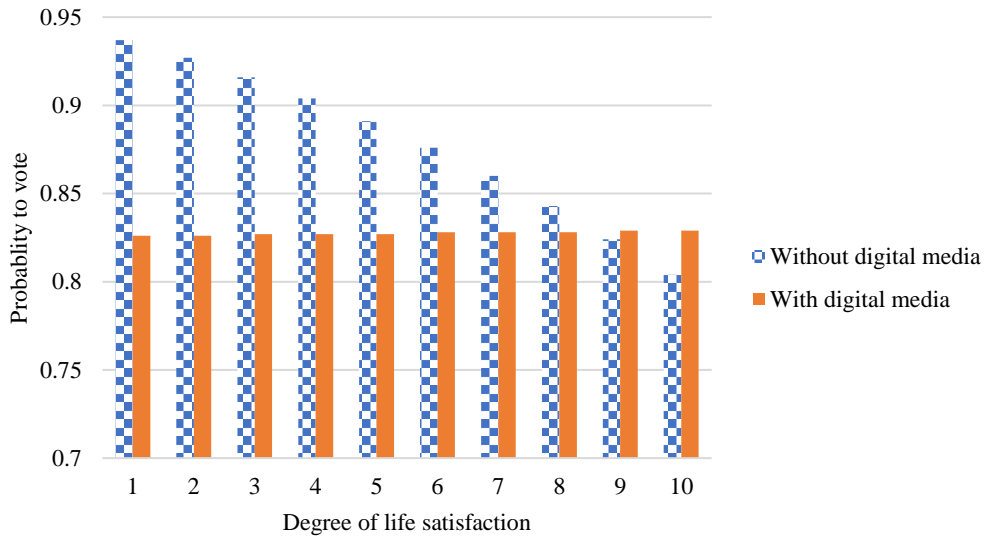
Note: Robust Standard errors in parentheses, \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

### 4.3. Joint Impact of Life Satisfaction and Digital Media on Voting Intention

After including the interaction term  $LIFE \times DM$  into the model in Column (3) of Table 8,  $LIFE$  and  $DM$  become significantly and negatively related to  $VOTING$  while the estimates of  $LIFE \times DM$  is significant and positive. The overall impact of life satisfaction on voting intention can be clearly observed in Figure 3. The bars with pattern fill display that life satisfaction and voting intention go in an opposite direction without digital media. Individuals who are not satisfied with life have greater intention to vote vis-à-vis those with greater life satisfaction.

Hence, the voting intention inequalities which are resulted from different levels of life satisfaction occur with a probability discrepancy of about 0.15 between the lowest-level and the highest-level of life satisfaction. This clearly shows that voters tend to release their frustration about their low life satisfaction through voting. This may be due to the bad administration under BN coalition that creates life dissatisfaction of Malaysians such as serious corruption, high inflation rate, and unmatched paid rise to the inflation (Noh, 2014; Welsh, 2013; Moten, 2011; Brown, 2008).

**Figure 3:** Voters with Worse (Better) Life Satisfaction Tend (Not) to Vote. The Presence of Digital Media Changed That



**Note:** The graph is drawn based on the regression results reported in Column (3) in Table 8. It shows the predicted probability to vote  $VOTING$  across different degrees of life satisfaction  $LIFE$  with and without interacting with digital media  $DM$  from the HLM modelling.

However, by democratising access to information with the presence of digital media, we obtain bars, labelled as “with digital media”, with identical probability of voting across different levels of life satisfaction in Figure 3. It is obvious that the voting intention inequalities are reduced to a probability discrepancy of about 0.02 between the lowest-level and the highest-level of life satisfaction while the voting intention remains high at a probability between 0.82 to 0.84 across different levels of life satisfaction. These results reflect that digital media plays an important role



in transmitting information. It allows voters to access more information about national affairs, political party campaign and the details of candidates (Spierings & Jacobs, 2014), creating the “political belongingness” that drives voting.

#### **4.4. Other Determinants of Voting Intention**

The Column (3) in Table 8 also shows that youths and senior citizens are less likely to vote compared to the middle age group. This may be due to youths’ cynicism (Dermody et al., 2010), political apathy (Kimberlee, 2002), and the change of value from politics to another aspect such as environmental issues (Wilkinson & Mulgan, 1995). Meanwhile, the stability of living makes the middle age group more active than the seniors in political participation (Burr et al., 2002). Additionally, the results also illustrate that political interest triggers voting intention (see, for instance, Goldberg & Sciarini, 2023).

The significant estimates of *FINANCE*, 0.271, suggest that Malaysians with better personal financial conditions tend to vote, thanks to ‘pocketbook’ voting where people tend to vote for sustaining the current government to benefit their financial situation (Liberini et al., 2017; Lewis-Beck and Nadeau, 2011). This study also finds that Malaysians having a child are more willing to vote than those who have no kid. These results perhaps are coherent with the tendency to vote for a better future for the next generation during the bad administration under BN coalition before May 2018.

Additionally, we also find that confidence in the political party will help boost the voting intention because higher confidence accompanies higher trustworthiness towards the party which ends with higher turnout rate (Dalton & Weldon, 2007). The results also suggest a positive relationship between identity and voting intention driven by the civic duty (Blais et al., 2019; Blais & Galais, 2016). Last but not least, we find that the level of education, ethnicity, and vote preference are not significant in the study.

## **5. CONCLUSION**

Drawing upon the 6<sup>th</sup> World Value Survey data that encompass the post-12<sup>th</sup> General Election and pre-13<sup>th</sup> General Election periods, which mark the onset of an accelerated voting turnout rate, this paper shows that individuals dissatisfied with life have greater intention to vote vis-à-vis those with greater life satisfaction. More importantly, however, by democratising access to information with the presence of digital media, we also show that voting intention is levelled irrespective of the degree of life satisfaction.

As digital media enables a broader, deeper, and more interactive political participation when one can have greater access to information, analysis, and voicing out his or her viewpoints, however ignorant, pertaining to the on-going political events. Such informal participation often leads to the act of voting. It is not without caveat though. While digital media promotes broader political participation, it can potentially breed stickier political cleavage among voters undisturbed by the changing information and facts. Whether, and to what extent if any, it harms the representative quality of an election, we leave it to the future study.

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