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A Preliminary Study of the Influence of Social Media Engagement on Information Seeking Behavior among the Secondary School Students

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Abstract

The aim of conducting this research is to examine the influence of social media engagement on information-seeking behavior. There is lack of concern about generalizability and implementation towards emphasizing the effects of social media engagement on information-seeking behavior in Malaysia. A close-ended questionnaire was distributed to the students to conduct the data collection for this research. The data was collected from students and was analyzed using SPSS version 26. Findings show that two hypotheses were accepted; Novelty and Perceived Usability have a positive and significant relationship between information-seeking behavior, while Focus Attention and aesthetics were found insignificant for information-seeking behavior.

Keywords: Social media, information-seeking behavior, Social media engagement, aesthetic, education

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1.0 Introduction

In data research, however, there is a growing body of work linking behaviors with underlying needs. Wilson (1999) defined information behavior as the totality of human behavior in relation to information sources and channels, including both active and passive searching for information and the use of information. All aspects of human information behavior, whether active or passive, are covered by information behavior, and the conduct of information use relates to the searcher adopting the knowledge they sought. According to Wilson (2005), it was possible to observe and investigate how people behaved in seeking information. The Internet and online information exchange dominate the current digital age. Social media platforms and their users have discovered the potential to use social media, primarily Facebook, as an information source. Facebook originally started as a social network intended for connecting people but has developed over the years and made information accessible. Users can read news and posts about incidents that are happening all over the world. One of the main motivations for Facebook use is information seeking (Whiting and Williams, 2013 In Kai Kaspar & Moritz Müller-Jensen, 2021).

Kim and Sin (2015) stated that social media is highly popular with diverse age groups, and sites such as Facebook are the most popular social media platforms used by students. Although socialization is the main purpose of social networking sites, an increasing number of people seem to get news from social networking sites. As essential news media, video-sharing platforms like YouTube are also

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well known. More recently, micro-blogs such as Twitter have also been used to get the news. When searching for data, many students would start with Wikipedia, which often provides an overview of a new concept and useful resources. As a social networking website, which is often used as a starting point, Wikipedia has been recognized as another popular social media platform. Social media plays a critical function in exchanging information and is used to communicate various forms of information, such as sensitive, dramatic, political, and casual information. Information is posted in real-time on social media. In social media, however, the information sought normally consists of the most current and up-to-date information. Reviews and tips for finding information can readily be found on social media, making it a repository of student information. The motives for using social media as a medium for finding information are numerous, including social networking, seeking information, passing the time, entertainment, recreation, voicing of opinion, exchange of information, and monitoring knowledge of others. 98 percent of users use social network sites (SNSs) in terms of social media forms, 95 percent use wikis as a source of content, 73 percent use user feedback, 69 percent use media sharing sites, and 49 percent receive information from question-and-answer sites. Only between 25 and 34 percent of users, however, seek information from blogs and micro-blogs. According to Kim et al. (2014), their study respondents barely used blogs and micro-blogs as information sources. Meanwhile, the effects of Twitter and Skype as intelligence sources were the same during collective problem solving, even in terms of the duration of the posts, the volume, subjects, and frequency shifts, but all were similarly successful no matter what kind of social media was used. In addition, SNSs impact the skill of foreign students with respect to how and how they interact with local hosts but are limited to recognizing the reduction of contact ambiguity and anxiety. There are several problems addresses in this study which still the major concern of almost all students and teachers. Research on social media engagement and information seeking behavior has been carried out since 1940s and yet there is a little picture for us to identify the effects. Moreover, there do exist lack of concern on generalizability and implementation towards emphasizing effects of social media engagement on information seeking behavior, particularly in Malaysia. Although, this have been fairly well researched in developed countries, and by several Malaysian studies, somehow there is still no clarity on the effects. This highlights the practical gap for this research. Moreover, social media engagement on daily lives can be good or bad, it depends on the way we use it and how it affects us. Students are an active participant of social media in this era. Furthermore, there are measurement issues that obscure the true meaning of social media on information seeking behavior. The behaviors of finding information are used to decrease confusion, but there is a lack of studies to define it in a social media setting. Thus, the purpose of conducting this preliminary study is to examines the influence of social media engagement on information-seeking behavior among the secondary school students. The main objective of this study is to identify factors contributed towards the student's information seeking behavior.

2.0 Literature Review

2.1 Social Media

According to the status of online social network approaches, interconnected computers increase the human intellect because the network increases the cognitive capacity of individuals. The change in the role of knowledge that is taking place in society has to do with the relationship between technology and society (Martínez & de Frutos, 2018). The rise of social media channels in the past decade has enabled new forms of customer/firm interaction. The role of social media within marketing has rapidly developed in recent years, attracting interest in both academic and non-academic literature. Social media has given consumers a rise in power, flexibility, and visibility regarding marketing content, changing the way individuals and organizations interact. As a result, customers have transformed from passive receivers of marketing content to active participants in the brand message (Mangold & Faulds, 2009). Interactive customer experiences through social media act as a significant influencing factor in many consumer behavior aspects, including information acquisition, purchase behavior, and post-purchase communication (Mangold & Faulds, 2009).

Social media includes numerous applications such as wiki, blogging, social networking, podcasting, etc. Kaplan and Haenlein (2010) distinguish six different types of social media, which are collaborative projects, blogs and micro-blogs, content communities, social networking sites, virtual game worlds, and virtual communities. Various technologies list blogs, picture-sharing, vlogs, wall-postings, email, instant messaging, music sharing, crowdsourcing, and others. The evolvement of social media causes the ongoing development of social media definition.

Kietzmann and Hermkens (2011) include in the framework of social media the following functional blocks to identity, which represent how users construct their personal representation, conversations which represent how users communicate and converse with others; sharing, which represents information bits that users present, share with others allowing other users to modify the shared content; a presence which represents the accessibility of users to others; relationships which represent how users relate to each other; a reputation which mostly represents trustworthiness of users and groups which represent user formed communities or sub-communities.

2.2 Social Media Engagement

Social media engagement measures the public shares, likes, and comments for an online business' social media efforts. The engagement has historically been a common metric for evaluating social media performance but does not necessarily translate to sales. In this chapter, extending from the literature reviewed in the previous chapter, the examination of engagement behavior focuses on a singular focal object of engagement (social media) and therefore does not reflect social media engagement in its entirety. The examination within this context-specific environment provides greater insight into the behavioral manifestations of engagement within social media platforms in order to further develop an understanding of the nature of engagement at different intensities and with different valence (Brodie et al., 2011; Vivek et al., 2012).

When organizations support the creation of the user experience to meet users' needs, higher user engagement occurs. To date, there has been much discussion about how to define user engagement. O'Brien and Toms (2010) define user engagement as a category of user experience, while several other scholars define user engagement using a more traditional approach of involvement engaging and participation, suggesting that engagement is both a psychological state and behavior).

2.3 Information Seeking Behavior

Information-seeking behavior is a purposive seeking of information because of a need to satisfy some goal. Information seeking is the process engaged in by humans to change their state of knowledge (Wilson 1999). It is a high-level cognitive process that is part of learning or problem-solving. To seek information implies the need to change the state of one's knowledge. Because of the new information formats of information sources and new information tools, users are expected to acquire new knowledge and skills in information searching. The person can interact with manual information systems (such as a newspaper or a library) or with computer-based systems during the search process (such as the World Wide Web). In a simple language, information-seeking behavior is a process where people search for information and utilize the same to complete their assigned task. Information is basically structured or processed data. Wilson (1999) proposed the Wilson's model of Information Seeking Behavior which is widely known as the Macro-model. In this model, Wilson mentions how the demand for information grows, involving the actual search process for information.

2.4 Conceptual Framework & Hypothesis

The previous analysis adopts Masrek, Razali, Ramli and Andromeda Engagement Model (Masrek et al., 2018) and O'Brien and Toms User Engagement Model (O'Brien & Toms, 2010). The present methodological structure where only some of the variables are taken to accomplish the purpose of this report. It shows a logical sense of variations between results that have been addressed as relevant to the issue through the construction of the conceptual construct. Figure 1 indicates the philosophical structure that this analysis would use.

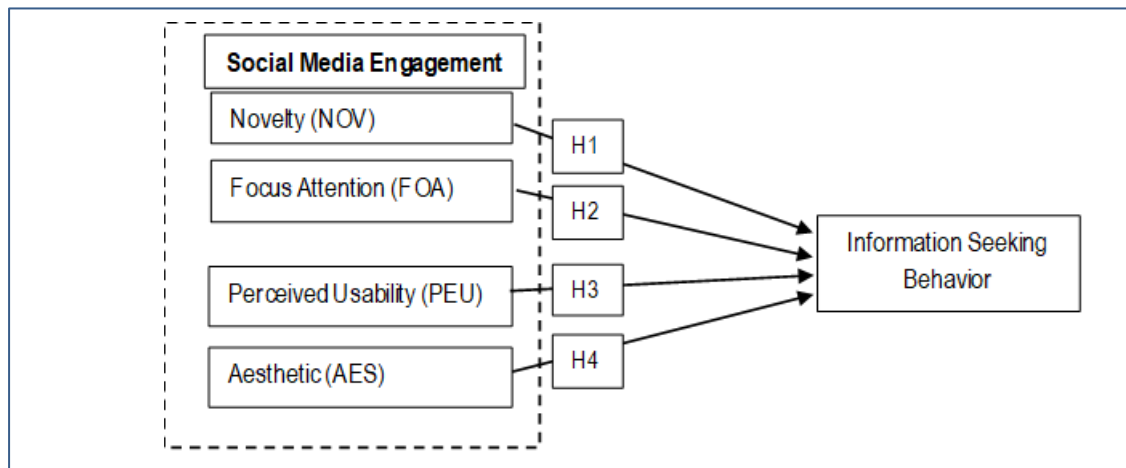


Fig. 1. Proposed Conceptual Framework

2.4.1 Relationship between Novelty and information-seeking behavior.

Novelty is defined as the assessment of the user's perception of the extent to which the information-seeking behavior stimulates curiosity. Pace (2004) suggested that Novelty in online content has the potential to sustain users' attention, specifically when Novelty is introduced through links and content that are pertinent to users, goals. Thus, a high possibility exists that there is a relationship between Novelty and information-seeking behavior. Therefore, the hypotheses of this study are formulated as follows:

H1: The novelty element of social media engagement has a positive effect on information-seeking behavior.

2.4.2 Relationship between focus attention and information-seeking behavior.

The focused attention factor is defined by items pertaining to focused attention, awareness, and perceptions of time. Focused attention is the concentration of mental activity containing some elements of flow, specifically focused concentration, absorption, and temporal dissociation. Thus, a high possibility that there is a relationship between focus attention and information-seeking behavior. Therefore, the hypotheses of this study are formulated as follows:

H2: Focus Attention element of social media engagement has a positive effect on information-seeking behavior.

2.4.3 Relationship between perceived usability and information-seeking behavior.

Perceived usability is an important requirement of educational software, affecting students' learning effectiveness and overall learning experience greatly. Pace (2004) found that the match between perceived challenge and searchers' skill was directly related to participants' ability to achieve a state of flow. Pace (2004) also stated that poor usability could impede users' enjoyment. Thus, a high possibility exists that there is a relationship between perceived usability and information-seeking behavior. Therefore, the hypotheses of this study are formulated as follows:

H3: Perceived usability element of social media engagement has a positive effect on information-seeking behavior.

2.4.4 Relationship between Aesthetic and information-seeking behavior.

Aesthetic refers to the visual look or appearance of your content. It helps establish a mood, tone, or style and demonstrates your personality. In information seeker behavior prove, this aesthetic element is emphasized. Shenkman & Jonsson (2000) have found that aesthetic elements (i.e., illustrations) contribute to Web users' first impressions of a website. While Jennings (2000) also related these aspects of focused attention and involvement to aesthetic experiences.

Thus, a high possibility that there is a relationship between Aesthetic and information-seeking behavior. Therefore, the hypotheses of this study are formulated as follows:

H4: Aesthetic element of social media engagement has a positive effect on information-seeking behavior

3.0 Methodology

This research study uses a quantitative approach. Quantitative research is generally associated with the positivist paradigm. This research includes the collection and transformation of data into numerical form so that statistical calculations can be made and conclusions are drawn to test the relationship between social media engagement and information-seeking behavior. This study uses a cross-sectional survey research design methodology. This is due to the study, which is on emphasizes the effect of social media engagement on information-seeking behavior. The relationship between the independent variables on the dependent variable is observed through data collection. The research instrument used the 5 Likert scale measurement method in the form of closed-ended questions (Hair, Money, Samouel, & Page, 2007) and distributed them to the students at a selected school in Batu Pahat. The questionnaire is in the google form, which is created by referring to past research questionnaires. The questionnaires consisted of 29 questions covering three sections which are section A is for demography, and sections B-E is for independent variables; Novelty, Focus Attention, Perceived usability, and Aesthetic. Section F is for the dependent variable (information-seeking behavior). The analyses conducted to answer the study's objectives were analyzed by Statistical Package for Social Sciences (SPSS) version 26.

4.0 Finding

4.1 Demographic

Table 1 presents the demographic details of the respondents. Out of 157 respondents, 41.4% were male, while the remaining 58.6% were female. As the focus of the study is on students from Form 4 and 5, the distribution is between 45.9% (Form 4) and 54.1% (Form 5). The biggest chunk of the respondents was aged 17 years old (54.1%), followed by those aged 16 (45.9%). In terms of respondents' race, most respondents are Malay (97.5%), followed by Indian (1.9%) and others (0.6%).

Table 1: Demographic Profiles of Respondents

		Frequency	Percentage
Gender	Male	65	41.4
	Female	92	58.6
Form	Form 4	72	45.9
	Form 5	85	54.1
Age	16 years old	72	45.9
	17 years old	85	54.1
Race	Malay	153	97.5
	Indian	3	1.9
	Others	1	0.6

4.2 Descriptive

Novelty is defined as the assessment of the user's perception of the extent to which the information-seeking behavior stimulates curiosity. Table 2 showed the average mean and standard deviation for Novelty is 3.88 and 0.79, respectively.

The focused attention factor is defined by items pertaining to focused attention, awareness, and perceptions of time. Focused attention is the concentration of mental activity containing some elements of flow, specifically focused concentration, absorption, and temporal dissociation. The average mean and standard deviation for Focused Attention is 3.09 and 1.05, respectively.

Perceived usability is an important requirement of educational software, affecting students' learning effectiveness and overall learning experience greatly. Pace (2004) found that the match between perceived challenge and searchers' skill was directly related to participants' ability to achieve a state of flow. The average mean and standard deviation for Perceived usability is 3.95 and 0.93, respectively.

Aesthetic refers to the visual look or appearance of your content. It helps establish a mood, tone, or style and demonstrates your personality. The average mean and standard deviation for aesthetics is 3.95 and 0.81, respectively.

Information-seeking behavior (ISB) is the purposeful seeking of information. It is also known as the micro-level of behavior used by the searcher to interact with information systems of all kinds, be it between the seeker and the system, or the pure method of creating and following up on a search, is Information Seeking Behavior. The average mean and standard deviation for Information Seeking Behavior is 3.79 and 0.87, respectively.

Table 2: Average Mean and Standard Deviation Of Variables

Variables	Average Mean	Average Std Dev.
Novelty	3.88	0.79
Focus Attention	3.09	1.05
Perceived Usability	3.95	0.93
Aesthetic	3.95	0.81
Information Seeking Behavior	3.79	0.87

4.3 Hypothesis Testing

4.3.1 Multiple Regression

A multiple Regression test was conducted to determine the predictive power of independent variables (Novelty, focus attention, perceived usability, aesthetics) towards the dependent variable (information-seeking behavior). Based on the adjusted R Square of 0.286, the model was able to predict and explain 28.6% of the variances in the research model. Table 3 shows the result of the multiple regression. From the table, it can be summarized that a total of 2 hypotheses were accepted, and two hypotheses were rejected. The result of the study are as follows:

- Novelty has a significant and positive relationship with information-seeking behavior (H1: Supported, $t=2.687$, $p<0.05$).
- Focus attention has an insignificant relationship with information-seeking behavior (H2: Rejected, $t=0.365$, $p>0.05$).
- Perceived usability has a significant and positive relationship with information-seeking behavior (H3: Supported, $t=3.872$, $p<0.05$).
- The Aesthetic has an insignificant relationship with information-seeking behavior (H4: Rejected, $t=1.470$, $p>0.05$).

Table 3: Multiple Regression

Hypothesis		Coefficients	t-value	P-value	Supported
H1	Novelty → Information Seeking Behaviour	0.224	2.687	< 0.05	Yes
H2	Focus Attention → Information Seeking Behaviour	0.026	0.365	> 0.05	No
H3	Perceived Usability → Information Seeking Behaviour	0.317	3.872	< 0.05	Yes
H4	Aesthetic → Information Seeking Behaviour	0.127	1.470	> 0.05	No

5.0 Discussion

5.1 Novelty and Information Seeking Behavior

The result of multiple regression shows that Novelty has a significant and positive relationship with information-seeking behavior (H1: Supported, $t=2.687$, $p<0.05$). The result of the study indicated that the respondents are interested in their social media tasks. Compared to working with a traditional method such as spreadsheets or Microsoft Office Suites, completing a task using social media are more desirable and interesting because it enables interaction with the content, encourages sharing of information, and provides an informal environment. Besides, social media does not require much knowledge compared to other types of applications, whereby all kinds of users can use social media without much training. Rich media social networks promote not only the creation and consumption of media but also communication about the posted media item.

Moreover, the content of social media incited respondents' curiosity. Curiosity has long been regarded as one of the important aspects of user engagement. Curiosity influences motivation to work hard and perform better in a task. Engagement with social media enables a new form of digital content to be published that certainly incites curiosity among the individual. Curiosity encourages the attainment of specific educational performance, as mentioned by Markey and Loewenstein (2014).

5.2 Focus Attention and Information Seeking Behavior

The result of multiple regression shows that focus attention has an insignificant relationship with information-seeking behavior (H2: Rejected, $t=0.365$, $p>0.05$). The result of the study contradicted several findings, such as Thomas, O'Brien, and Rowlands (2016), and Masrek, Razali, Ramli, and Andromeda (2018). Previous research found a positive relationship between focus attention and information-seeking behavior. However, this study indicated that improving focus attention did not have a positive and significant relationship with information-seeking behavior. Perhaps this negative result can be attributed to the fact that people nowadays are delving into social media platforms. As asserted by Akram and Kumar (2017), social media brings both positive and negative impacts to the users and businesses and must be managed properly. Chukwuere and Chukwuere (2017) also asserted that the influence of social media on human is undeniable and perhaps influences the negative result obtained by this study.

5.3 Perceived Usability and Information Seeking Behavior

The result of multiple regression shows that perceived usability has a significant and positive relationship with information-seeking behavior (H3: Supported, $t=3.872$, $p<0.05$). Perceived usability was found significant to the achievement of information-seeking behavior. An

individual will use social media if they think it will be used to help them and if it is easy to use. Social media usually have an easy interface that will be updated automatically whenever a new news is created by any of the surfers. Besides, the interface has an easy function that does not require much knowledge of the computer, meaning that everyone can use it and does not need to be an IT savvy person. The result of this study indicates a means value of 3.60, indicating a value toward positive responses. Most respondents argue that they have the capability to control their usage of social media, especially in the context of information-seeking practices. As asserted by Alwagait, Shahzad, and Alim (2015), the usage of social media has no impact on students' CGPA. Students need to balance their time management, an indicator that usually affects the students negatively.

5.4 Aesthetic and Information Seeking Behavior

The result of multiple regression shows that aesthetics has an insignificant relationship with information-seeking behavior (H4: Rejected, $t=1.470$, $p>0.05$). The result of the study indicated that hypothesis four was rejected. The Aesthetic was found not to be significant towards information-seeking behavior. The finding of this study also contradicted previous findings of O'Brien and Toms (2010), Masrek and Samadi (2017), and Mohamad Rosman, Ismail, and Masrek (2021). The reasons for this negative result can be attributed to the fact that social media has become a new norm in society. As asserted by Skulmowski, Augustin, Pradel, Nebel, Schneider, and Rey (2016), the more users are familiar with the design of the website, the more they will become saturated or desaturated. The effect of saturation provides a negative impact as more people become familiar with the design and aesthetic element of the application, the less they will concern regarding the design and focus on the loyalty issues to the usage of the application.

6.0 Conclusion

This study developed and validated a conceptual framework measuring social media engagement (Novelty, focus attention, perceived usability, aesthetics) and information-seeking behavior. However, only two out of 4 hypotheses were accepted. There are several limitations of the study as it only focuses on a few variables. Future studies may improve the model by adding new variables such as perceived usefulness, perceived ease of use, information quality, etc since the sample population was only applicable to a single site and two groups of students involved only 157 students. Future studies should consider a widespread data collection that involves more respondents to get more knowledge on the issue. Besides, this study uses Statistical Package for Social Sciences (SPSS) to analyze data. Future studies may consider other types of statistical software, such as SmartPLS. Novelty (NOV) and Perceived Usability (PEU) were found to have a significant and positive relationship with the independent variable, Information Seeking Behavior. Thus, this study provides some theoretical contribution in terms of a newly validated research model concerning social media engagement and information-seeking behavior among secondary school students.

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