

ITEM DEVELOPMENT FOR SOCIAL TAGGING IN THE STUDY OF USAGE IN SOCIAL MEDIA COMMUNITY

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ABSTRACT

Recent research has shown that extensive use of tagging in social media or better known by social metadata leads to emergent semantics. Much has been learnt in recent years about how to capture the data provided by taggers for the purpose of visibility and needs to trending that beneficial as marketing for businesses and public or targeted engagement such as social media community. However, little progress has been made on other issues, such as understanding the usage of tagging within specified community. which is essential for, among others, identifying social media usage relationships between concepts, this study intended to address that void. Starting from a review of metadata definitions to social media users, introduce validity of items created for the framework, applying partial least squares structural (PLS) to measure the level composite reliability, variance inflation factor (VIF), and Heterotrait-monotrait ratio (HTMT) of items of social metadata dimension. Evaluation are done by comparing with grounded measures. Results suggest that the generality of tags in social tagging systems as social metadata can be approximated with simple measurement of the newly created items. The discussion of the results leads to discovery of major findings entrench with the hypotheses.

Keywords: *Social Metadata, Tagging Data, Social Media Tagging, Social Tagging, Hashtag*

1. INTRODUCTION

The concept of circulating content going viral and bringing thousands of new readers to online content pages, whether it's on websites, blogs, Twitter posts, Facebook updates, and so on have becoming more trending for the past 2 years. To make your headlines stand out, powerful words and sensory details are included, in hope for it to comes around and reach as many as followers or users or viewers in the same boat. Social metadata is an extension of the ability to embed specific pieces of information into your web pages so that when the page is shared, a summary, title, and featured image are pre-programmed for use in the analysis, measurements and marketing for business online. Rather than relying on Facebook, Twitter, and other social platforms to guess how content should appear in their social feeds, Social metadata usage tell them exactly what and how you want it to happen. Social metadata is extra information about your content that may not be visible to your readers but can be picked up by

other services, such as Google's search robots.[1] This definition however, brings more meaning and points out several characteristics.

2. DEFINING SOCIAL METADATA

A hashtag is a type of metadata tag that begins with the hash symbol #. In a 2007 tweet, American blogger, product consultant, and speaker Chris Messina advocated the usage of hashtags for the first time. Hashtags are a type of user-generated tagging that allows cross-referencing of information, or sharing a topic or theme, on microblogging and photo-sharing platforms like Twitter, Instagram, and Facebook [2].

It is proposed to use the hashtag in helping people who don't have a lot of experience with search protocols, to discover particular relevant information. A hashtag must begin with a hash character, be followed by additional characters, and conclude with a space or the end of the message. Some platforms may demand that the # be followed

by a space. Most, if not all, systems that accept hashtags allow the use of letters without punctuation marks, numbers, and underscores. According to Terence, E. [3], certain characters, such as '&', are typically not supported since they may already fulfil other search tasks. Hashtags are not case sensitive (a search for "#hashtag" will also return "#Hashtag"), however using embedded capitals (e.g., CleftCutie) enhances readability and accessibility. Wikstron, P [4] quoted in his work that hashtags can be used to communicate context surrounding a message without the intention of categorising it for subsequent searching, sharing, or other purposes. As a result, hashtags might act as a self-reflexive meta-commentary that is design to meet various purposes in social media platform.

The designation of a hashtag is to fill the purpose of dissemination of information in the social media platforms. Hashtags designed for discussion, in example of a specific event, such as a cake festival using #cakefestival rather than simply #cake, prefer to employ unusual phrasing to avoid being caught up in generic talks on related themes. However, because people frequently use multiple spellings or phrases to refer to the same issue, this might make it difficult for ideas to become "trending topics." To make a hashtag trend, there must be an understanding, whether implicit or explicit, that the hashtag pertains to that specific issue.

Caleffi, P. M. [5] in her study stated that This can be used to provide context or add depth to the information or message that appears with the hashtag. "My arms are darkening minute by minute. #toomuchfaketan". Another usage of the hashtag is to convey one's own sentiments and emotions. For example, "It's Monday!! #excited #sarcasm," when the adjectives explicitly indicate the speaker's feelings. Social media platforms are critical for disseminating health information.

However, evidence suggests that a large proportion of Twitter posts are not necessarily accurate, and many studies suggest that tweets do not need to be accurate, or at least evidence-based, in order to gain traction. In the field of health information, this is a dangerous combination [6]. In all, the social metadata is important in the storing and retrieving the social content in the social media platforms

3. SOCIAL TAGGING

There are two distinct tasks after deciding the study design, as shown in the Figure 1: identifying the sample and determining how the key variables will be measured. The important variables should have been determined. Although using an existing questionnaire will save time and resources [7], a questionnaire that measures the construct of interest may not be readily available, or the published questionnaire is not available in the language required for the targeted respondents. As a result, investigators may need to develop a new questionnaire or translate an existing one into the language of the intended respondents.

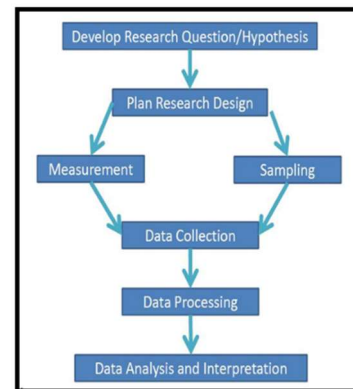


Figure 1 Identifying The Sample And Determining How The Key Variables Will Be Measured -Adapted From Singleton & Straits (2010)

Information gathered for targeted advertising may be used to deduce a user's political and religious preferences. The problem is exacerbated further by the fact that these datasets are frequently made public, either as part of a campaign or as a result of information leaks. Previous research has shown that the content of an Online social network platform message reveals a wealth of information about its author. Text analysis can be used to determine an individual's age, gender, and political orientation [8]; the general mood of groups [9]; and the mood of individuals [10]. Image analysis can reveal the location of a photograph [11], the photographer's residence [12], or even the relationship status of two people [13]. Mobility data from location-based social networks, as well as user check-in behaviour, can reveal cultural background [14] or uniquely identify users in a crowd [15]. Finally, even if an attacker only had access to anonymized datasets, someone may be able to re-identify users by examining the network structure

[16]. Most, if not all, of these conclusions may be regarded as invading users' privacy, and as a result, most service providers are beginning to protect the content. Access control lists, on the other hand, are insufficient. We contend that the behavioural data contained in the metadata is just as useful. Metadata has morphed into an essential component of the services provided by social networks. Twitter, for example, provides information on users mentioned in a post, the number of times a message had been re-tweeted, when a document was uploaded, and the number of interactions a user had with the system, to name a few. Users rely on these to assess the credibility of an account [17], and much of the previous research in combating social spam relies on account metadata for detection [18].

According to new study in communication and learning, hashtag practises have an impact on student teaching and growth. Study of eight research revealed substantial results in the usage of hashtags in K-12 classrooms. These findings suggested that hashtags aided students in expressing their views. Furthermore, hashtags aided pupils in comprehending self-organization and the idea of space beyond location [19].

4. CONSTRUCT DEFINITION

The construct definition is the theoretical definition, and it's best to get it by looking at other research studies that have looked at the same variable. In this study, an extensive review has been done to determine the proper definition of metadata in social media content. Most of the information we generate in our daily interactions and communication in the digital world is associated with metadata. Webster defines "meta" as a broader term used to "describe a new and related discipline designed to deal critically with the original one." Metadata, as a result, defines a discipline that promotes the study of data about data. Arun [20] previously stated that metadata has always been treated as a second-class citizen in the world of databases and data warehouses. Its primary goal has been to define the data.

The current focus on metadata in the data warehouse and software repository communities, on the other hand, has elevated it to a new level of prominence. Metadata is now required by the organisation for tool integration, data integration, and change management. Creating metadata introduced methods for permanently storing data on

secondary storage. Arun [20] also said application programmes can then retrieve and use this data. Data from secondary storage is stored and retrieved using file managers. Smiraglia, R. P. [21] stated that metadata schemes are designed to target resources as knowledge packages, with little regard for the distinction between content and carrier. Most schema are developed without an analytical understanding of the concepts that must be described, the best ways to extract words describing the key concepts, and how metadata definitions can be used for retrieval. This is support by Greenberg, 2003 then again in 2017, stating that although the creation and implementation of metadata schemes has been extensive over the last decade, research evaluating the sum of these activities is minimal [23]. Howard, L [24] explains that cataloguing rules are forerunners of today's bibliographic guidelines. Metadata schemas have been created to address the needs of specific fields or domains and to facilitate a range of resource discovery functions.

According to Greenberg, J. et al [25] in earlier years of semantic development has defined metadata as ability to navigate the semantic web, a system of organised semantic information. This semantic system is known as metadata. Traditional paper records, as information containers, continue to be a primary source of organisational awareness and serve as communication vehicles. Despite the growing use of electronic mail and other digital technology, the pervasiveness of paper records in the fabric of work practises necessitates close consideration of how they are handled for organisational effectiveness. The historicist paradigm, which accepts meaning and the assumption that knowledge grows inside knowledge domains or discourse cultures, is displacing the classical empiricist concept of a universe of knowledge. The workplace is compared to a knowledge ecology, where personal classification schemes can be studied within an epistemological context. In the statement made by Feraioli, L. [25] the process of creating personal metadata contributes to grounded theory because it was discovered that temporal, spatial, and contextual variables affected the development.

Personal metadata were also discovered to represent situational and domain awareness [25]. Chohey, M [26] mentioned that metadata is used to organise and manage a wide variety of information object collections, the majority of which are accessible through the World Wide Web. Metadata is descriptive knowledge about a piece of data at the

most basic level [27] A card in a library's card catalogue contains detailed details about a specific book, such as the author, title, subject matter, and location in the library. The information is included in the novel. The metadata is represented by the card. This is the simple understanding on what is metadata is all about.

In the past, researchers and practitioners have primarily focused on the issue of identifying a user from a message's content. Users can share links, documents, images, videos, and thoughts on platforms such as Facebook, Flickr, and Reddit. Data has become the newest form of currency, and data analysis is both a commercial and academic endeavour. When online social networks (OSNs) first became popular, privacy was not a major concern for users and, as a result, was not a top priority for service providers. Previous research has shown that the content of an OSN platform message reveals a wealth of information about its author. Perez, et al [28] have stated that this heightened by the fact that this descriptive information can be actively analysed and mined for a variety of purposes, often beyond the platforms' original design goals.

With the advent of the digital era, metadata evolved as a means of describing digital data. With Web 2.0, the role of metadata evolved once more. Although metadata exists in the same form, end users/consumers search for similar content to consume using hashtags (pound symbol/number sign). This advancement of technology supported the proper dissemination of information, where in the world wide web the continuance of reproduction is endless, especially with the existence of social media platforms. Many, if not all, of these may be construed as violating users' privacy, so most service providers are starting to protect content. Access control lists, on the other hand, are insufficient; where [28] contends that the behavioural information contained in the metadata is equally informative. The way platforms describe the distinction between data and metadata isn't just a philosophical debate; according to [29] it has real implications for a variety of activities now supported by apps and internet-connected platforms [30]. The Cambridge Analytica breach of Facebook user data is perhaps the most well-known example of exploiting the relationship between data and metadata. Social media users consider the social media mobile scenario exciting, but it is worth mentioning that most of the information attached to the contents can be considered personal and sensitive

[31]. All of these phenomena metadata in social media content have culminated in the creation of this study.

5. METADATA AS CONTRIBUTING FACTOR

Within the medical community, there is ongoing discussion about whether the knowledge available via social media is accurate and true, and whether physicians are ready to accept and eventually embrace these tools as a format for professional growth and lifelong learning [32]. In his study, the findings conclude that historically trusted health channels were more likely than other users to tweet accurate health details. [33] discovered fascinating and actionable gaps in the involvement of different demographic groups in various forms of health-related social channels. These differences are substantially different from those found in internet use or general social media activity. Many health-related websites, such as WebMD and MedlinePlus, collect web usage data. Fernandez-Loque [34] have stated that web usage data is used by WebMD to personalise ads based on the type of Web browser used by the user. Web use data has also been used to measure the efficacy of public health initiatives. These shows the usage of the metadata in a social media among the user are crucial.

6. ITEM DEVELOPMENT

To develop the questionnaire, the theoretical foundations of variables have been studied with using the strategic review method. It is later conceptualized in a form of table to distinguish the components based on the characteristics derived from the literatures. Table 1 illustrates how the scholars supports the characteristics.

Table 1: Illustrations of scholars supporting the characteristic of the study.

Supporting Scholars	Characteristics
Literatures taken from articles, journals, websites	Developed by patterns and justifications made

The study done by Albalawi, Y., Nikolov, N. S., & Buckley, J. [35] on reviewing the accuracy health-related tweets originating from Saudi Arabia had proven that the usage of keywords plays a vital role. This study is done on the similar objectives on

previous study done by Sadah, S. A., Shahbazi, M., Wiley, M. T., & Hristidis, V. [33] where it learns the keywords usage effected on the demographic evidence of health-related information posted in the social media. On earlier have mentioned that in his study of health information dissemination in communication suggested that the benefits of applying the correct and precise keywords [36]. Zappavigna, M., & Martin, J. R. [37] and Laucuka, A. [38] also have suggested that using keywords will help to enhance the functions of communications. It is highlighted also in the most recent study by Chen, E., Lerman, K., & Ferrara, E. [39] in tracking the social media information during the Covid-19 pandemic that shows how it is important to track the life-altering information precisely and analytics of updates in social media.

Morgan-Lopez, A. A., et al [40] in the study of forecasting the age groups of Twitter user have mentioned that the language use is the utmost vital in comprehend the metadata of social media. Supporting this is that language is important in detecting innovative and emerging drug terms [41]. Both Jeffares, S. [42] and Allem, J. P., et al. [43] also advocate the use of language can interpret trends and policy ideas. Earlier, Zappavigna, M. [44] have mentioned that using the universal language is important to create affiliation on the web. Farzindar, A., & Inkpen, D. [45] in processing social media postings to be synthesize and predicted it as becoming the new human language technologies.

Awareness of hashtag have been studied earlier by Zowawi, H. M., et al [46] as a role of social media platforms in community awareness of antibiotic use in the Gulf Cooperation Council States. Leveraging big data to improve health awareness campaigns [47] have also emphasize on the need of awareness and comprehension support [48] in a similar study. Katz, M. S., Anderson, et al [49] support the idea of awareness in developing hashtag collections for healthier internet-based people and communities. Awareness also have a degree of influence in social media platforms on public health protection against the Covid-19 [50].

A study of usage need of Instagram hashtags has been made in indicating as image annotation metadata [51]. Later in 2016, he also studied defining and identifying stop hashtags in Instagram, where it is still implying the vital usage of hastags [52]. Hazzam, J., & Lahrech, A. [53] in the study of health care professionals' social media behavior, mentioned a proper usage of hashtags

promotes social media adoption and use. The importance of social media that reveals hashtags usage contribute to telecommunication vision and social media images [54]. The study of depression screening using mobile phone usage metadata done discuss on the usage of hashtags that could ease the anxiety of information searching [55].

In the study of finding the gap of social media engagement by public health researchers have argue that engagement is needed in forming the ties of information providers in social media usage [56]. This is supported by the recent study [57], [58] into perceptions of its influence on health and wellbeing and health promotion. Engagement being a vital element in replacing the human values when dealing with people with anxiety [59]. Similar proposition in the study about dermatologist in social media [60].

Consuming extracted knowledge from large amounts of social media data to make business decisions is being studied [61] where finding discuss on the connection of sources to the dissemination of knowledge through social media means. The factor of knowledge linkages in contributing to preventive behaviours in the COVID-19 pandemic [62]. A similar effect on knowledge linkages as a factor in a study of affiliation disclosure and control over user-generated comments affects consumer health knowledge and behavior [63]. It can be concluded that the keywords, language, usage, engagement and link to knowledge become the essential variables in this study following to answer the hypothesis of

H1: What is the effect of social metadata on continuance usage of social media community group?

7. NEW ITEM FOR SOCIAL TAGGING IN SOCIAL MEDIA

In order to develop the questions, the previous study and scholarly literatures have been analysed and conclude to the recommendations of further study within the field by stating wide issues that should be addressed in order to promote and encourage further and better scientific research [64]. As for this study, metadata is related to the way the user seeking information by using social media metadata that is hashtags where as a conclusion in hashtags being the substitute of a keywords in collocating information and content in social media platforms [32],[36]. These items use 5-point likert scale format for responding, which asks participants

to indicate their level of agreement to statements. This scale (as in Table 2) was also chosen because it contains a middle-point, which means it was possible to analyse the influence of “neither” in respondents’ opinions [65]. Typically, the options are various levels of Strongly Agree, Agree, Agree Somewhat, Disagree Somewhat, Disagree, or Strongly Disagree.

Table 2: Items created for Social Media Metadata in the research topic the social tagging use in Health Content for Social Media Community Group (Mazwani Ayu, 2021)

Characteristics	Items
Keywords	I frequently use these keywords (hashtags) when searching for or retrieving information about health related information
Language	I am using keywords (hashtags) for seeking cleft information using English rather than native language
Usage	I am aware of the hashtag’s usage in my social media community groups
Engagement	I am aware that hashtags increased the level of engagement by those who are following the groups
Awareness	I am aware of the hashtag’s usage in my social media community groups
Link to knowledge	I am aware that hashtag usage allows the organization to link messages to existing knowledge and action within social media communities

8. ADDING FULL FRAMEWORK TO SOCIAL TAGGING ITEMS

Items that are created are then being analyzed as an independent variable (latent variables) and the continuance of use as the dependent. The rationale for continuing usage is based on previous studies and literatures, which were then changed to comprehend continued use by

including social tagging components as considerations. The continued usage of social media is introduced in the literature as having a big impact on responses in the social context.

9. CONTENT AND ITEM VALIDITY

Validity refers to the degree to which a measure's scores accurately reflect the variable for which it was created [66]. In this study, survey questions were addressed to selected avid social media users (especially those with a background in information management and/or IT) for their feedback, for content and item validity. The feedback is then being processed thoroughly and made to match with the characteristic identified earlier. The result is as seen in table 2 where the transcribing evaluated a theme or main characteristics that have been extracted and identify in the process. The items are validated using statistical measurements in smart PLS to ensure that assesses can be done correctly in what it is intended to achieve [87]. Valid questionnaires aid in the collection of higher-quality data with high comparability, reducing work and increasing data trustworthiness. In this study, in order to established scale, a pilot testing with sample size of 53 is used to check the reliability of the scale based on exploratory factor analysis.

10. REALIBILITY TEST FOR ITEM VALIDITY

The PLS technique that used in this study was first established by Swedish econometrician Herman O. A. Wold (1975; 1982; 1985), and has been extended by Lohmöller (1989), Bentler and Huang (2014), Dijkstra (2014), as well as Dijkstra and Henseler (2014) [67]. Partial Least Square (PLS) predicts the path model's partial regression relationships using regression and main component analysis [68] with the goal of maximising the explained variance and minimising the error terms of the endogenous constructs [70][71]. The criteria of this measurement are crucial for the assessment of items develop because during cross-validation in Smart PLS, it provides a goodness of fit result where evaluation will be done to utilise a multiple regression technique for dependent variables [88].

The data that have been retrieved was tested with the construct of continuance intention use [71] [72] [73] that explains the act of engaging user using technological platforms.

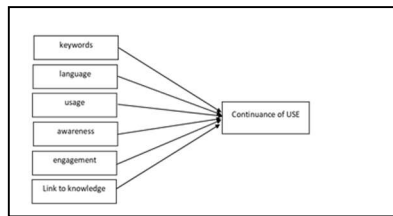


Figure 1: Variables of social tagging for the study of Social Tagging use in Health Content for Social Media Community Group (Mazwani Ayu, 2021)

10.1 Discriminant Validity and Reliability

The term of discriminant validity is measured utilizing the Average Variance Extracted (AVE) square root value. The value that is recommended is more than 0.5 while testing the composite reliability of the indicator block is measuring the construct. A construct is considered to be reliable if the composite reliability value reaches more than 0.60. The result of data analysis manifests that research data converge discriminatory validity and composite reliability criteria, the result is as seen in Table 3 and 4.

Table 3: Reliability and Convergent Validity Result

Reliability and Convergent Validity				
Construct	Cronbach's Alpha	Rho_A	Composite Reliability	Average Variance Extracted (AVE)
Continuance USE	0.84	0.87	0.902	0.755
Social Metadata	0.814	0.844	0.867	0.566

10.2 Discriminant Validity Assessment

Assessing discriminant validity has become a widely acknowledged criterion for assessing correlations between latent variables. The Fornell-Larcker criteria and the study of cross-loadings are the major methodologies for evaluating discriminant validity in variance-based structural equation modelling [74]. As a result, these authors suggest an alternate way to assessing discriminant validity based on the multitrait-multimethod matrix: the heterotrait-monotrait correlation ratio (HTMT). superiority of this technique through a Monte Carlo simulation analysis that compares the novel approach to the Fornell-Larcker criterion and the assessment of (partial) cross-loadings [74]. Finally, they discuss how to deal with discriminant validity difficulties in variance-based structural equation modelling.

Table 4: Discriminant Validity

Discriminant Validity (HTMT)		
Construct	Continuance USE	Social Metadata
Continuance USE	0.869	
Social Metadata	0.223	0.753

11. HYPOTHESIS TESTING

To test the hypothesis that $\beta > 0$, we compute the one-tailed P value associated with the path coefficient at the 0.05 significance level (i.e., 1-95 percent). In general, this amount may be understood as the likelihood of belonging to a distribution with a mean of zero and a standard deviation [75] of it is computed as the area under the curve shown on the left side of the picture, with the total area set to 1. The hypothesis is accepted if $P < 0.05$; else, it is rejected. Below figure is the summary of the characteristics (table 5) and Table 6 showing the result of P values as show it is acceptable correlate with the acceptance level with the result of $P = 0$.

Table 5: Item Coding based on the Characteristics

Characteristics	Item Code
Keywords	META1
Language	META2
Usage	META3
Engagement	META4
Awareness	META5
Link to knowledge	META6

In this study, the item developed are given a code as in Table 5, and the summary of the hypothesis can be seen as in Figure 2 below.

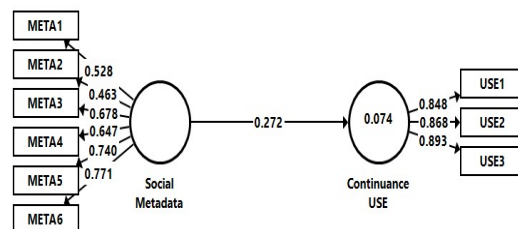


Figure 2: Summary of research hypothesis

Figure 2 above illustrated the result of the path model based on the hypothesis coded (Table 5) and then path coefficients result is being calculated. A path coefficient represents the direct influence of one variable

considered to be the cause on another variable supposed to be the result. For this study, the P values are in a good 'fit' of 0 (Table 6), bringing the mean of a potential causal relationship between statistical variables.

Table 6: Path Coefficients value for Social Metadata to Continuance Use

Path Coefficients					
	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Social Metadata -> Continuance USE	0.272	0.281	0.038	7.081	0

11.1 Multicollinearity with Variance Inflation Factors (VIF)

The variance inflation factor (VIF) detects and quantifies the intensity of association between independent variables. For each independent variable, Smart Partial Least Squares (PLS) computes a VIF. VIFs have no upper limit and begin at 1. A value of one implies that there is no relationship between this independent variable and any other variables. VIFs between 1.00 – 5.00 indicate a substantial association, although it is not severe enough to necessitate remedial action. VIFs larger than VIF = > 5.00 indicate significant levels of multicollinearity in which the coefficients are poorly approximated and the p-values are suspect [76]. The result of VIF for this research can be seen in Table 6, based on the hypothesis of this study where it is between VIF = 1.125 – 2.296 which is considered substantial associated thus significant for this study.

Table 6: Collinearity Result

Items	VIF
META1	1.125
META2	1.142
META3	1.483
META4	1.513
META5	1.794
META6	1.803
USE1	1.679
USE2	2.344
USE3	2.296

11.2 Convergent and discriminant Validity

Convergent and discriminant validity are the two most important features of construct validity.

The degree to which the new scale is connected to other variables and measures of the same concept is referred to as convergent validity.

Table 6: Reliability and Convergent Validity Result

Path Coefficients					
	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Social Metadata -> USE	0.223	0.232	0.036	6.144	0

The concept should not only correlate with related variables, but it should also not correlate with dissimilar, unrelated variables. A decision along these lines is known as discriminant validity [77] [78]. This research result for path coefficients can be seen below at table 6, with the result of P = 0, which is acceptable.

12. RESULT DISCUSSION

It is critical for this study to have a firm grasp on the findings of the feedbacks that are required to establish on the new items developed for social tagging for social media users in continuance of usage of social media platforms. This is due to the fact that the outcome would assist the social media user in being more aware and educated about locating health-related information in social media material and postings. To answer to the hypothesis question that is leading to the factors involved effect of social metadata on continuance usage of social media community group, it can be concluded that the keywords, language, usage, engagement and link to knowledge become the key factors. These factors have also proven in the variety of reliability and validity testing done in a sample size of 53 during the pilot test and also the content has been authenticated by a notable information specialist who is also an avid social media user.

12.1.1 Validity and Reliability

Looking at the validity and reliability results, it is reasonable to claim that the Cronbach Alpha (0.84, 0.814) value is satisfactory. The AVE results (0.755, 0.566) of the corresponding constructs of continuous usage and social tagging are similarly satisfactory (acceptance level is more than 0.5). This demonstrates that input from significant organizations of health and information specialists is

consistent with the same understanding of social media and hashtags usage by a social media user in a community page. Discriminant validity based on the multitrait-multimethod matrix: the Heterotrait-monotrait correlation ratio (HTMT). The purpose of the discriminant validity evaluation is to guarantee that a reflective construct has the strongest associations with its own indicators (e.g., more than any other construct) in the PLS path model [69]. The result shows the value of 0.753 which is below the average acceptable level that is 0.9 where if the HTMT score is less than 0.90, discriminant validity between two reflective constructs has been established [69]. Therefore, in regards of this study, it is distinguished that there is relevance level established for the study path model based on the newly developed items.

12.2 Hypotheses

The variance inflation factor (VIF) quantifies the degree of multicollinearity in a collection of multivariate regression variables [70]. The VIF for a regression model variable is equal to the ratio of the total model variance to the variance of a model with only that single independent variable. For each independent variable, this ratio is computed. A high VIF suggests that the independent variable linked with it is significantly collinear with the other variables in the model. Detecting multicollinearity is critical because, while it does not lower the model's explanatory capacity, it does reduce the statistical significance of the independent variables [80]. As for the result of this study, the value of each items are below $VIF = < 3.00$, where it is considered acceptable in this case. The below statements are the proven significant of hypotheses tested for the major findings of this study;

12.2.1 Keywords as relevance companions in searching content in social media

In the study of health information dissemination in communication suggested that the benefits of applying the correct and precise keywords [36] [37] [38]. The result in relevance with the bootstrapping calculation done in PLS showing the results of significant value $VIF = 1.125$. Using keywords are proven by the social media as it will assist to improve communication functions. This demonstrates that the results are consistent with the literature, and so latent is also regarded legitimate. Many researchers, information specialists, and social media community members have armed themselves with knowledge of information seeking and are

constantly doing so to guarantee that the proper information or material disseminated within the community is legitimate and approved as well as accurate tracking of life-altering facts and analyses of social media updates.

12.2.2 Language is essential in grasping comprehension of content in social media

Based on the results of the language items of $VIF = 1.142$, it can be stated that language is vital in order to maximise understanding and delivery of information in social media material. A good language used meaning that the language are understandable globally (such as English language), language or lingo that are used within the community (content related lingo like *CLP* and *ops* that refer to cleft lip palate or operations), or Tagging abbreviations that relatable to the community (example *#wcdim* meaning, *we can do it mommy*). Language is enablers to communicate using human language, tapping into people's emotions while avoiding more functional words and phrases, and will perform better in advertising effectiveness, on brand metrics such as aided brand awareness, ad awareness, and aided product awareness [81]. The community often held a special event, for example parade, webinars, awareness campaigns that surely benefit the hashtag use that allowing the community members to actively be in the know for any updates, hence promote collocating valuable information and content.

12.2.3 Hashtag usage is considered vital for social media content searching

The significance of hashtag usage of $VIF = 1.483$ may be derived from the common codes and circumvention tactics that may characterise user group. Platforms employ hashtags as a technique to regulate problematic submissions for a reason: non-tagged content is more difficult to discover. Hashtags are likely the most prominent type of social media communication, linking material between people "who do not already have a follower/followee connection." [83]. These have been the main motivation of the social media community to use the hashtags for being in the loop of what's new and updates on the relatable information of common interest with each other.

12.2.4 Engagement promotes solidarity of common interest of social media community group

The usage of social metadata or social tagging (refer as hashtag) may be used to identify which messaging points are resonating with specific audiences. These messages could then be utilised in other advocacy initiatives to reinforce essential ideas and encourage greater interaction and involvement with the topic. If, on the other hand, a hashtag has not been effective in generating social media community interest in the organisation, cause, or campaign, it can be withdrawn and replaced by one that will. The result of $VIF = 1.513$ showing it is significant to the social media user as one of the factors contributing to the continuity of social media usage. The recent COVID-19 pandemic has clearly demonstrated that such unexpected interruptions, which cause health and safety concerns, result in the cancellation of planned medical gatherings, conferences, and training courses [85]. Situation like this has rekindled interest in establishing a virtual web-based platform to mitigate the burden of being unable to attend these educational symposia in person. Twitter and other social media channels might be a valuable resource for continuing to promote the educational component for the rest of social media user, or the targeted community.

12.2.5 Awareness of hashtag usage promotes linkage and broaden networking

Due to the increasing availability of social media, individuals have countless options to voice their thoughts and have them heard by thousands of others. This generates massive volumes of raw data collected from user behaviours like as who they follow, how they react to a topic, and how others reply to their thoughts [86] hence it is not surprising fact that it result in significant value of $VIF = 1.794$. The awareness of hashtag usage could project community initial intention and interest as well as to educate themselves. It also ensures them to have a large network with diverse type of professionals in the community's bubble that can give benefit for explaining and verify a content and posting, or better yet provide one. Monitoring and analysing social media material for subjects of interest can uncover hot topics of debate and discover key influencers in the industry by simply tracking the hashtags used.

12.2.6 Hashtags becoming the vital link to knowledge

For the past two years, the pandemic has witnessed the linking of sources to the spread of knowledge through social media channels [61]. This immediately introduced a new means of looking for

information and material in social media, and tagging generates a plethora of knowledge possibilities that might link and educate social media users indirectly, fostering healthier digital citizenship in the future. The significant result value of $VIF = 1.803$ shows that hashtags enable network interactions, which can help to build a professional and educated social media nation and benefit people all over the world.

13. CONCLUSION

The impacts of social metadata on the continuous use of a social media community group have been discovered via literature research and corroborated by professionals, bringing hashtags to the table as one of the most basic innovations that change the dynamic of information searching. Hashtags are common in the social media world. The development of such technologies has altered how social media users engage with and consume social media information and content. The metadata that is currently being used extensively and rapidly is demonstrating to the world the importance of data classification, dissemination of information that is open up the discovery of many knowledge and interests that make the world a better place by advocating usage effectively and continuously. In this study, hashtags only being analysed on the usage and continuity, based on the development of items from professionals' feedback and literatures. There is opportunity to widen the research to scrutinize the impact to a wide range industry and educational field since the hashtags in social media is in great demand of usage.

A new dimension of social metadata is established to help social media users and social media platform providers understand the importance of hashtags in contributing to the vast amount of information and content visibility, which is also beneficial for business realm industry to consider as part of marketing initiatives, information specialist and also content writer or curator in social media where contribute to the major findings of this study; the comprehension that are mutual among the information specialists and user. Moreover, the structure of monitoring and measurement of social media platforms and application can be implemented to increase accessibility and interactivity of social media performance and assessment can be done in a diverse industry and field that are using social media platforms. It is also help in preserving by collocating information that posted in the social media for

references on historical and valuable events, eliminating tedious time and lengthy processes.

The evolution of social media user behaviour and way of thinking has been inspired more by rapid advancement of technology and the lesser duration to comprehend information. As a result, it is hoped that this would contribute to the dispersion of future elements, transforming the stigma of illiteracy to well-versed digital society, and boosting the digital nation's performance, supporting the digital citizenship noble's element along the way.

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