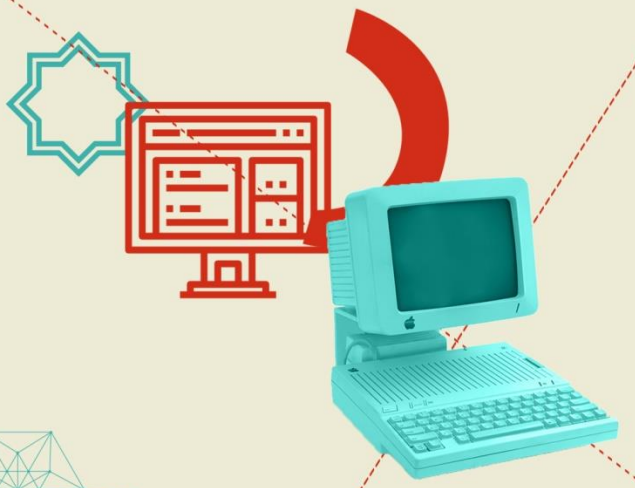

CONVERSATION-DRIVEN SOCIAL MEDIA OPTIMIZATION:

Tactic and Effects on User Engagement

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ABSTRACT

Creating engaging social media content remains the biggest challenge in digital marketing. Lack of framework and user-centric approach may contribute to campaign's ineffectiveness in fostering user engagement. This research introduces Conversation-driven Social Media Optimization (SMO), a two-steps tactic as the solution. Twitter was used as the media, and Indonesian tourism was used as the context. In Conversation Mining and Analysis step, optimized words from the most popular ("Temple" topic) and least popular conversation ("Surfing" topic) in Twitter were gauged. Later, were used to construct digital contents (listicle, photo gallery, videos) in the Conversation Steering step. Evaluative experiment revealed that using the tactic in content creation has significant effect on user engagement, most importantly word-of-mouth intention. Enthusiasm to travel moderated the effects. Yet, the effect does not depend on inherent engaging level of the content. Lastly, video with optimized words from most popular conversation was proven to the most effective content.

Keywords

Social media optimization, semantic network, big data, content marketing, digital marketing, tourism

1. INTRODUCTION

Social media cannot be separated from its defining feature: storytelling. As a dynamic medium, social media provides users with tools to participate and tell their own story, culminating in user-generated content (Alexander & Levine, 2008). Typically, user-generated content is more popular among users in social media. Popular contents shared by one user can even influence buying behavior of another (Dhar & Chang, 2009, Ye, Law, Gu, Chen, 2011).

Companies have tried to leverage this storytelling feature to create more engagement with their consumers, resulting in content marketing. Whereas user-generated contents are produced by consumers, content marketing is produced by companies for the purpose of long-term prosperity of brand (Pulizzi, 2012). Some examples are corporate magazines, blog posts, videos, infographic.

For the majority of brands and practitioner, producing an engaging content remains the biggest challenge in content marketing (Pulizzi & Hadley, 2016). Lack of benchmark in this field probably contributes to this hurdle. Currently, content creation is largely up to the marketer's creativity or depends on words supplied by Search Engine Optimization (SEO) tool such as Google Trends or Google Keyword Planner (Ihsan, personal communication, February 21, 2017). As such, the effectiveness of contents may vary, and it is hard to achieve the same level of effectiveness for every social media post (Content Marketing Institute, 2017).

Furthermore, without knowing the content's audience, it is difficult to gauge what kind of content they actually want to engage with (Setiawan & Savitry, 2016). Content created from the marketer's perspective may be full of promotional materials, while SEO-based content may be too focused on increasing the visibility of the content in internet, and not engagement to the content itself. On the contrary, user-generated content resonates more with the audience because most of the times it is produced from one's own experience for civic engagement purpose (McKenzie, Burkell, Wong, et al., 2012). Consumer's experience underlines user's real thoughts, hence, one can argue that in order to compel users to engage further with the content, the content itself should reflect the users' thoughts and desires.

So far, two issues have been revealed: first, the lack of benchmark in content marketing that makes the practice less effective. Second, the necessity to create user-centric approach in content creation.

This research aims to address those issues by creating Conversation-driven Social Media Optimization (SMO) tactic, an unprecedented tactic to create content that people actually want to engage with. The tactic takes into account users' thought and desire before constructing a digital content by getting insight from data mining of popular conversation in social media. In this research, Twitter is used as the social media being studied. Furthermore, Indonesian tourism is employed as the general context.

Hence, two research questions are advanced:

RQ 1: What is the Conversation-driven SMO tactic and how it can be used to develop user-centric social media contents?

RQ 2: What are the effects of using Conversation-driven SMO tactic on user engagement?

Currently, there is a serious lack of data-driven research in communication studies. In this domain, most of the research only employs traditional method to study social media data, for example through survey (Felt, 2016). On the contrary, most research around this topic is mostly studied by computer scientist or information science scholars (Zimmer & Proferes, 2012).

Therefore, this data-driven research is expected to be able to fill in the gap in current studies about implementation of social media big data in social science. Moreover, it can be used as alternative consideration to marketing practitioner in industries, especially tourism industry. In a broader scope, the tactic can be implemented in another social media as well, such as Facebook.

2. THEORETICAL FRAMEWORK

2.1 Indonesian tourism as context

Context is a major part in content marketing. It is the heart of the story. In this research, Indonesian tourism is used as the overall context. First, it is used as the starting point to delve into Twitter search network to obtain user insights. Consequently, it is used to set the tone of content creation. Elaborated below are some important aspects of Indonesian tourism used in this study.

The Indonesian government is currently launching cross-border marketing activities under the official branding of "Wonderful Indonesia". The mentioned campaign culminates in five different thematic communication pillars, each has unique experiential elements of the particular theme.

First, the "Natural Wonders" that communicates about Indonesia's nature such as marine, mountains, and greenery. Second, the "Sensory Wonders" which revolves around leisure experience like food, drinks, wellness, and entertainment. Third, the "Cultural Wonders Experience" that comprises of arts, culture, and heritage of Indonesia. Fourth, the "Modern Wonders Experience" which conveys modern city life, technology, and transportation. Fifth, the "Adventurous Wonders Experience" that communicates about sports, adventure, and exploration in Indonesia. (Ministry of Tourism of Republic of Indonesia, 2016a).

Leveraging the benefit of digital world, the Indonesian government has increased the use of social media to promote the themes. In Twitter, the Ministry of Tourism (via official account @indtravel) uses some words that reflect each of the themes (e.g. "beach" for Natural Wonders theme). This study draws inspiration from those words as the bait to fish for conversation surrounding each theme in Twitter search network. For instance, using the word "beach" to find out what are the popular conversations about beach in Indonesia.

Figure 1. Example of words used in Twitter

2.2 Semantic network theory

As a text-based social media, Twitter data are best analyzed semantically. The frequent use of irregular syntax and informal sentences (Saif, He, & Alani, 2012) makes Twitter data prone to have semantic gap such as abstraction gap and complexity gap (Atteveldt, 2008).

Abstraction gap happens when the words in data refer to concrete actor or issue, while researcher is more interested in the whole concept. Whereas, complexity gap happens when researcher attempts to use non-structured words to describe complex phenomenon referred (Atteveldt, 2008). Therefore, we need to see the association between texts to get the whole insight of conversation in Twitter.

This is where semantic network theory is useful. The theory enables researcher to understand relationship between concepts expressed in textual network using names and common, overlapping words. The concepts itself can refer to actors, issues, or even values (Atteveldt, 2008)

One of the methods to study semantic network is by learning the relationship among words in the text (Doerfel, 1998). According to Atteveldt (2008), understanding the textual content of subgroups in network is more than coding the frequently mentioned words. More than that, scientist should also look at the source, subject, association between frequent words, and the sentiment of it.

In this research, words extracted from Twitter data are analyzed by looking at frequently mentioned words, the subject and association between words in relation to Indonesian tourism. For instance, what kind of tourist place that people like to discuss in Twitter, what kind of leisure experience that people like to Tweet about. The context of the words has to be carefully described to make sense of the data. Because the data reflects real conversation, it can be seen as knowledge capital of tourist wants and needs in social media. Thus, it can be used as the basis to create appropriate contents to drive positive user engagement.

2.3 Media richness theory

Previously, it was mentioned that Twitter data may have problems about semantic gap, and that researcher has to look at the association between texts to gauge the general idea of the conversation. All of the problems may create a feeling of ambiguity, the unsureness about interpretation of information (Pieterson & Johnson, 2011).

To solve ambiguity in information, it is suggested that communicators should match the communication channel to the content (Daft & Lengel, 1986, 1988). The decision to use 'rich' or 'lean' media should be based on the content's characteristic. The richness of media indicates the capacity of certain medium to carry information (Dainton & Zelley, 2015).

Ebbers, Pieterson, and Noordman (2008) argue that ambiguity should be taken care by giving visual storytelling. In this study, this aspect of Media Richness Theory is used to explain whether the result of Twitter conversation data is indeed best conveyed using visual storytelling.

2.4 Conversation-driven Social Media Optimization (SMO) tactic

These days, more companies have turned to social media to conduct their marketing activities, especially when they want to engage with their current or prospective consumers (Neti, 2011). To have an effective campaign, it is crucial to have an optimized social media tactic.

The term "Social Media Optimization" (SMO) was first coined by practitioner Bhargava (2006). It is often used to describe activity to increase visibility of company website in search engine, by posting contents in numerous social media. However, this study has a different idea of SMO.

Most marketing activity in social media is directly related to content marketing, the creation of relevant and compelling content by brands on regular basis (Pulizzi, 2012). Thus, SMO in this research is defined as ways to augment social media content, in order to encourage user engagement.

This study proposes Conversation-driven SMO tactic as one of the ways to augment social media content. It is based on argument that understanding consumer's thought could increase relevance to people's situation, hence possibly triggers their engagement. For instance, by sharing the content in their social media.

Conversation-driven SMO tactic relies on words construction of the content. The words itself are based on users' real thought and aspiration

concerning a specific topic. The tactic consists of two major steps, as concluded below:

1. Conversation mining and analysis: The first step is where researcher or practitioner mines data from a text-based social media site, analyze the popular conversation using semantic network analysis, then choose the words to be used in content construction.
2. Conversation steering: The second step revolves around construction of digital contents. Previously, the first step has produced several words and context based on popular conversation. Then, the words are embedded in digital contents, such as article, photos, and videos. In addition, the context that underlies the words is also used for illustration.

The following illustration visualizes the premise:

Figure 2. Steps in Conversation-driven SMO tactic

Below is the formula of the tactic:

A digital content[1] x optimized words from popular conversation

In this research, the social media being studied is Twitter. This following explanation will elaborate on Twitter conversation mining and the types of content to be optimized.

2.4.1 Data mining of Twitter conversation

Twitter, as a popular microblogging site, allows users to freely express their mind in words. Twitter data enables research to delve into the minds of users as they are uttering their thoughts, in nearly real-time, at both individual and aggregate level (Bifet & Frank, 2010).

Semantically, Twitter has its own language that distinct itself from other text-based social media data. In addition to words that construct a post, Twitter also has "#" (hashtag), "@" (reply), and RT (re-tweet). Users reply to each other using that convention. How users communicate in their network using Twitter language culminate in certain rhythm of conversation in Twitter (Rossi & Magnani, 2012)

According to Bifet and Frank (2010), text-mining is one of the two fundamental data mining tasks that can be used for Twitter data. Text mining analyzes the actual text in the data. Since this research is mostly interested in semantic analysis of Twitter conversation, text mining is the most appropriate data mining method.

A number of problems can be solved using Twitter text mining, such as sentiment analysis (analysis of user feeling), tweet clustering, classification of tweets into categories, and detection of popular topic (Bifet & Frank, 2010). Additionally, popularity of topic can also be measured quantitatively by computing width of tweet distribution and depth of deliberation (Zhang, Peng, Zhang, & Wang, 2012). Width of distribution refers to how many times a tweet are re-retweeted, and depth of deliberation alludes to the number of comment (reply) received by a tweet. Measuring popularity quantitatively is necessary before it is done qualitatively by textual analysis.

2.4.2 Social media contents

Social media contents refer to typically shared message in social media sites, respective the site' unique characteristic (e.g. microblog in Twitter). User-generated contents dominate the sites. Contents can differ in each format, although can be shared across platform (Smith, Fisher, & Yongjian, 2012). Based on contents frequently seen in internet, the forms of contents can be described as follows:

a. Textual content: Narrative contents that convey message through words and sentences. Exemplified in articles, blogs, listicle (short article containing lists) and news piece.
b. Visual content: Message that appeal to human sight. Typically, it refers to image-based contents such as photograph, digital poster, info-graphic. Relevance between image and the story can increase audience's attention (Mawhinney, 2016).
c. Audio content: Refers to auditory information, for instance podcast, music, audio commentary. The use of audio as a stand-alone content is declining and it is favored less by content marketers (Gerard, 2016).
d. Audio-visual content: The combination of all the mentioned media altogether, resulting in a richer media like videos. Audio-visual content is highly favored by both consumer and producer in content marketing—to the extent it is predicted to be the future of this field (Trimble, 2015). It is able to attract more attention and thought to increase better purchase, which is why video content has the greatest Return of Investment (ROI) index (Lloyd, 2015).

When creating digital content, one has to set the tone of the content and choose the right combination of format and topics (AOL, 2015). Previous studies suggest that relational content or one with human-to-human nature is more appealing to consumers, compared to organizational and promotional content (Setiawan & Savitry, 2016, Ahuja & Medury, 2010). Moreover, content about traveling are best conveyed

[1] Could be one of the forms of digital content mentioned in the literature (e.g. article, photo gallery)

through photo gallery (visual content), listicle (textual content), and short video (audio-visual content) (AOL, 2015).

For this reason, all the contents in this study employ relational nature. The promotional values in the contents are made in a non-obvious way. Also, because photo gallery, listicle, and short video are rendered to be the best format to convey topic about traveling, this research will employ those formats.

As mentioned before, the tactic takes into account user's real thought by delving into Twitter's popular conversation regarding Indonesian tourism context. Ultimately, this leads to a user-centric approach in producing digital content.

Arguably, more popular conversation represents bigger interest in certain topic. Therefore, it is hypothesized that they have bigger capability to elicit more user engagement. At last, since video is thought to be the most effective content by most practitioners, the study argues that it would trigger largest effect on user engagement.

2.5 User engagement in social media as evaluation of tactic

Nowadays, professionals are more interested in user engagement as the end goal of their campaign, as opposed to purchase intention (Ihsan, personal communication, February 21, 2017). Mainly, it is because engaged consumers can go beyond core purchase situation, enhancing loyalty and reducing possibility of defecting from firm / brand (Dessart, Veloutsou, & Morgan-Thomas, 2015). This is the main reason why the tactic is evaluated using user engagement measures.

According to Ahuja and Medury (2010), content creation is one of the ways to foster user engagement. Through online content such as corporate blog, firm is able to satisfy consumer's desire for exploratory browsing, aid their search for information, give access to promotional campaign, and respond to negative controversies.

Although constructs of engagement vary across literature, the core dimensions are cognitive, affective, and behavioral (Dessart, Veloutsou, & Morgan-Thomas, 2015; Hollebeek, Glyyn, & Brodie, 2014). Cognitive refers to enduring and active mental states in relation to the engagement focus. Affective is defined as the summative and enduring level of emotions in relation to the engagement focus. Then, users manifest their motivation to engage in behavior beyond purchase (Dessart, Veloutsou, & Morgan-Thomas, 2015). Furthermore, cognitive processing is determined by the thinking process and interest stimulation. Affective state is measured by the degree to which users feel positive, how the engagement object makes them happy and proud. Behavior refers to the behavioral output based on the object (Hollebeek, Glyyn, & Brodie, 2014), in this case spreading word-of-mouth.

In addition to measuring the aforementioned dimensions, this study also measures direct engagement such as intention to reply, like, and follow the content creator. It is because of the fact that social media posts are highly interactive in nature (Constantinides & Fountain, 2008). However, due to the differing nature of both of the behavioral outputs, this study separates the behavioral dimensions into two variables: direct engagement and word-of-mouth intention.

Based on the reasons stated in this section and previous section about the tactic itself, the first and second hypotheses for the evaluative experiment are forwarded:

H1: The use of Conversation-driven SMO tactic in content creation significantly affects user engagement in their (i) cognitive processing, (ii) affective states, (iii) direct engagement, and (iv) word-of-mouth intention.

H2: The combination of video and words from the most popular Twitter conversation has the largest effect on user engagement in their (i) cognitive processing, (ii) affective states, (iii) direct engagement, and (iv) word-of-mouth intention, compared to other combination.

2.6 Enthusiasm as moderator of effect

In some studies, enthusiasm is regarded as sub-dimension of user engagement (Dessart, Veloutsou, & Morgan-Thomas, 2015). Described as "consumer's intrinsic level of excitement and interest" (p. 35), enthusiasm is proved to be important dimension of user engagement, which could manifest in dissemination of word-of-mouth as the behavioral output (Vivek et al., 2014).

Enthusiastic users are genuinely excited about what the engagement focus has to offer (Vivek, 2009). Any context can drive enthusiasm, for example brand-related context like Apple products also has enthusiastic user/consumer (Vivek et al., 2014). Therefore, it is necessary to include user enthusiasm as moderator. Not only as an important aspect of user engagement, but because it is related to the role of context in Conversation-driven SMO tactic. It is possible that different level of enthusiasm among people, explains the effects of tactic's usage.

Since the context of the tactic in this study is about tourism, user enthusiasm is re-constructed as enthusiasm to travel. It is defined as user's innate excitement and interest to travel. Thus, third hypothesis for the evaluative experiment is constituted as follows:

H3: Enthusiasm to travel moderates the effect of using Conversation-driven SMO tactic on user engagement in their (i) cognitive processing, (ii) affective states, (iii) direct engagement, and (iv) word-of-mouth intention.

2.7 Engaging level of content as mediator

Creating a genuinely engaging content is the ultimate goal of content creation (Pulizzi, 2012). Engaging content is described as the one that fully captures user's attention (Mathur & Stevenson, 2015).

Currently, there is no definitive factor about what determine an engaging content[2]. However, a study by Sadoski, Goetz, and Rodriguez (2000) mentions that language concreteness may be a possible determinant, due to its ability to stimulate visual imagination in people's brain. The same study also posits that interestingness may play a part in gauging whether the content is engaging or not. Truly engaging content is able to solicit participation from users, hence raise awareness to the brand. Ultimately, engaging content is the one that able to generate user commitment. For instance by reinforcing brand loyalty or compel people to go the extra mile to support the brand in the future (Hoffman & Fodor, 2014).

In this study, the extent to which content is deemed engaging is included as mediator. Concreteness, interestingness, and engagingness are measured as probable determinants for a truly engaging content. Arguably, because Conversation-driven SMO tactic employs popular conversation in Twitter, users might perceive the constructed content as more engaging. As engaging content pave the way for user engagement, fourth hypothesis for the evaluative experiment is constructed this way:

H4: The extent to which content is deemed engaging mediates the effect of using Conversation-driven SMO tactic on user engagement in their (i) cognitive processing, (ii) affective states, (iii) direct engagement, and (iv) word-of-mouth intention.

Based on the elaborated literature studies, a research model is constructed this way:

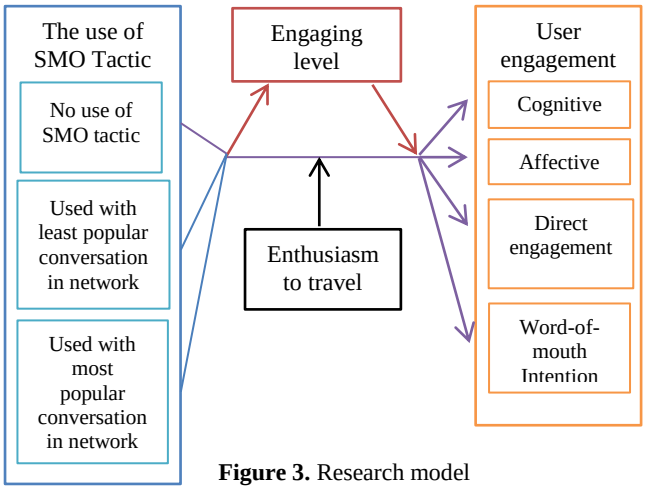


Figure 3. Research model

[2] It should be noted that the extent to which content is deemed engaging is different from engagement level. An engaging content is similar to captivating content, one that really captures user's attention (Mathur & Stevenson, 2015). While user engagement is more about the state and behavior of the user after he / she is exposed to the content.

3. METHODOLOGY

The first research question will be answered by conducting the two steps of Conversation-driven SMO tactic. First, Conversation Mining and Analysis where social media data is mined and the popular conversation within are analyzed with semantic network theory. The outcome of the first step is words within context of interest. Second, Conversation Steering, where digital contents are constructed based on previous analysis. Later, an evaluative experiment is done to measure the effectiveness of this tactic on user engagement. The following explanation will elaborate on each stage.

3.1 Conversation Mining and Analysis

Twitter data for this step were retrieved every week from February 13, 2017 to April 10, 2017 using NodeXL (Smith et al., 2010), an extended tool of Microsoft Excel. The period was chosen due to numerous tourism events happening during that time (e.g. Musi Jazz Sriwijaya Festival, Jogja Air Show) (Ministry of Tourism of Republic of Indonesia, 2016b). All the events were promoted digitally and physically to the international community, hence possibly resulting in social media conversation.

The search queries were manually coded, inspired by frequently used words of @indtravel official account. Each query reflects a topic within the ministry's pillars of theme[3]:

a) Natural Wonders: Beach, Mountain, Surf, Nature
b) Sensory Wonders: Food, Drinks, Festival
c) Cultural Wonders: Art, Temple, Culture
d) Modern Wonders: City
e) Adventurous Wonders: Adventure, Sports, Explore

To determine the popularity of each topic, quantitative measurements were done based on two dimensions of tweet popularity: width of tweets distribution (amount of retweet) and depth of deliberation (number of comments) (Zhang, Peng, Zhang & Wang, 2012). It was conducted using descriptive statistics in SPSS.

Subsequently, semantic analysis was done to delve into the conversation within the most popular and least popular topic. The result was used as the basis to construct digital contents popular in Twitter.

3.2 Conversation Steering

This step combines the degree of Conversation-driven SMO tactic usage—from non-usage, usage with least popular conversation, to usage with most popular conversation—with digital contents conceptualized in theoretical framework. The design of digital contents employs 3 (optimized words: non-optimized words vs. from least popular conversation

[3] Every query use the word "Indonesia" to limit the data (e.g. beach AND Indonesia), but the users are not limited geographically as social media content can cross borders

vs. from most popular conversation) x 3 (contents: photo vs. article vs. video) method.

	Non-optimized words (Nn)	Optimized words from least popular conversation (Lp)	Optimized words from most popular conversation (Pp)
Photo Gallery	Pg.Nn	Pg.Lp	Pg.Pp
Listicle	L.Nn	L.Lp	L.Pp
Video	V.Nn	V.Lp	V.Pp

Table 1. Stimulus / manipulation design

3.3 Effectiveness evaluation of Conversation-driven SMO tactic on user engagement

The second research question is answered using between-subjects experiments to evaluate the effect of using the tactic on user engagement. Online survey using Qualtrics were done, in which participants were exposed to one of the (randomized) stimuli. Online survey was chosen to reach experimental realism. Thereby, respondents could participate without having to leave their natural environment (Dooley, 2001).

Snowball sampling was used to mimic the online chain of referral in social media usage, reduce time and space limitation, also to increase participation (Dusek, Yurova, & Ruppel, 2015).

3.3.1 Evaluative measurements

The engagements being measured are the cognitive, affective, and behavioral dimension of users. Enthusiasm to travel is added as possible moderator, while the extent to which content is considered engaging is included as mediator. All items in this survey were quantified using 5-point Likert scale, ranging from "Strongly disagree" to "Strongly agree". Reliability analysis was conducted from the pretest's results (n = 5) with alpha of 0.05.

Measurement for enthusiasm to travel consists of four questions, modified from Vivek at al. (2014). The scale becomes reliable after one item was deleted ($\alpha = 0.750$)

Engaging level is derived from three self-constructed questions about the extent to which users find the content interesting, concrete, and engaging (Sadoski, Goetz, & Rodriguez, 2000, Mathur & Stevenson, 2015). However, following reliability analysis, it was found that language concreteness did not contribute to engaging level. Upon deletion, the scale becomes reliable ($\alpha = 0.914$).

To measure user engagement, respondents are asked with three questions about cognitive processing and four questions of affective states (Hollebeek, Glynn, & Brodie, 2014). Questions about cognitive processing were highly reliable ($\alpha = 0.961$), and affective states questions also has good reliability ($\alpha = 0.745$)

Behavioral dimension will be measured with separate sets: three self-constructed questions related to direct engagement and four inquires related to word-of-mouth intention, adopted and modified from Price and Arnould's (1999) scale and electronic word-of-mouth measurement from Goyette et al. (2010). However, one of the word-of-mouth questions was proven to be unreliable. After it was discarded, the whole scale for behavioral dimension was regarded as very reliable ($\alpha = 0.825$)

4. RESULTS

4.1 Conversation mining and analysis

This step revolves around collecting Twitter data and analyzing the 'tweets' with popularity measures. Consequently, semantic analysis was conducted to learn about the context within popular conversation.

The collected dataset for this research comprised of 88.551 Twitter posts in total, spanning in 14 topics of five large themes. The tweet distribution of each topic varied, with some topic able to extract more tweets than other. Below is the distribution, ranked from the largest to the smallest.

Topic Name[4]	Amount of Tweets (post)
Festival	15.427
Temple	11.332
Food	10.291
Adventure	8.967
Art	8.891
Nature	6.809
Beach	6.120
Culture	6.079
Sports	4.421
Explore	3.879
City	2.365
Drinks	1.495
Mountain	1.418
Surf	1.057
TOTAL	88.551

Table 2. Total tweet generated

At first glance, "Festival" topic seemed to be the most popular topic. It generated 15.427 tweets, around 17% of the total dataset. However, since popularity is also measured by retweet times and number of comments, it was found that actually the second largest dataset, "Temple", was more popular.

Descriptive statistics revealed that "Festival" topic received 6.105 mentions[5] and 134 replies[6] in total. Meanwhile, conventional tweets made up the majority, which were 9.188 posts. In all the dataset, tweets with Indonesian language dominated with 12.612 posts, followed by 2.351 tweets posted in English, and 126 Spanish tweets. The rest consisted of small fraction of other languages. This shows that although "Festival" topic was popular with Indonesians, it could not attract worldwide attention.

[4] All was retrieved using query "AND Indonesia", e.g. "Festival AND Indonesia" to limit the data

[5] Tweet that begins with "@", denoting a mention to other user or a Retweet

[6] Comments to user's post

On the other hand, although "Temple" topic generated second largest dataset among all, the posts' popularity appeared to be larger than "Festival" topic. From descriptive statistics analysis, it was known that it had more mentions (8.492 posts) than conventional tweet (2.729 posts). Because mentions consist of retweets and mentions of other user, it was likely that "Temple" topic generated more engagement. Moreover, the topic induced 111 direct replies overall. The language people used when tweeting about this topic seemed to be more diverse, varied from English (7.497 posts), Indonesian (2.891 posts), followed by Italian (468 posts), Romanian (128 posts), and the rest are other languages. Thus, it shows that this topic received worldwide attention.

Based on the popularity measurement and language distribution within the topic, it is decided that the most popular topic is "Temple". The decision takes into account that posts in "Temple" topic were able to make people actively respond the post either by using retweet or mention.

On the other hand, "Surf" generated the least amount of dataset. Overall, it received 443 mentions and 9 replies. Other than that, the conventional tweet accounts for 603 posts. The language sparse around English (625 posts), Indonesian (154 posts), Spanish (137 posts), and Portuguese (49 posts) among others.

The second least dataset, "Mountain" topic", had more popularity than "Surf" topic. Not only that it generated more twitter posts, receiving 643 mentions, 35 replies, compared to 740 conventional tweets. The language used to tweet is predominantly English (1006 posts), followed by Indonesian (329 posts) and other variety of languages.

Based on the explanation above, "Surf" is still considered the least popular topic among all. Not only that it generated the least twitter data, but the popularity measurement is also low.

Within the "Temple" topic, positive words dominated negative words, generating 2022 words compared to 448 negative words. Furthermore, Twitter posts are clustered into 10 groups based on similarity of discussion and size of groups. The more users talk about something, the larger the group size.

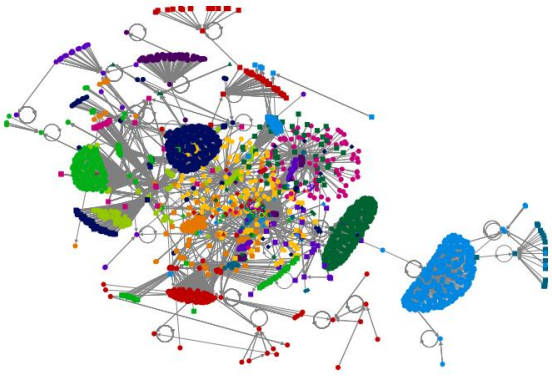


Figure 4. Twitter conversation network about "Temple"

Color variety of the graph indicates that each group has different, though similar discussion about "Temple" topic. Each edge (dot) represents a user, linked through reply network (@), hashtag (#), retweet (RT) or mention (@). The most predominant word pairs in the entire graph are as follows:

Top Word Pairs in Entire Graph	Entire Graph Count
bali,Indonesia	1855
rt,rohinimithra	904
temple,Indonesia	861
borobudur,temple	805
temple,bali	802
hindu,temple	618
underwater,temple	513
hidden,underwater	504
java,Indonesia	421
rt,wtimage	374

Table 3. Top word pairs in entire "Temple" network.

Overall, Bali dominated the network. It is not surprising, since Bali is one of the most popular destinations in the world (Paris, 2017). As the home of largest Hindu population in Indonesia, Hindu temples are prominent in this island. The underwater temple refers to Taman Pura (Temple Garden), which is actually a conservation project made by Australian Agency for International Development (AusAid) in Pemuteran, a small fishing village in Bali (Jakarta Globe, 2010). It is interesting to see the underwater temple once again become a source of discussion in Twitter. Among the word pairs, Borobudur Temple as the world's largest ancient Buddhist Temple also made the list. Although it is located in Java Island, the neighbor island of Bali.

To gain more insights, we also look for top word pairs in three of the largest, most dense groups. G1 indicates the first and largest group, G2 indicates the second, and G3 indicates the third. Other groups were omitted because they were not very large and not very prominent in overall discussion.

Top Word Pairs in Tweet in G1	G1 Count
rt,rohinimithra	780
temple,Indonesia	280
hindu,temple	273
bali,Indonesia	228
balinese,style	143
temple,bali	129
rohinimithra,beautiful	122
rohinimithra,pura	114
indonesia,hindu	110
indonesia,built	107

Table 4. Top word pairs in Group 1.

Twitter user @rohinimithra dominated the largest group network. This user frequently posts Hindu-related contents, including Hindu temples. She actively engages with her 9.882 followers and other Twitter users, culminating in a rich network. Once again, Bali temples dominated the discussion.

Top Word Pairs in Tweet in G2	G2 Count
bali,Indonesia	382
rt,wtimage	373
temple,ceremony	366
ceremony,bali	366
wtimage,temple	365
holy,spring	9
spring,water	9
water,temple	9
temple,gianyar	9
indonesia,built	107

Table 5. Top word pairs in Group 2.

Top Word Pairs in Tweet in G3	G3 Count
bali,Indonesia	347
rt,expiorelife	345
hidden,underwater	332
underwater,temple	332
temple,near	332
near,bali	332
expiorelife,hidden	331
pura,besakih	15
besakih,temple	15
temple,bali	15

Table 6. Top word pairs in Group 3.

Again, Bali temple dominates the conversation in second and third largest group. The places mentioned in the groups correlate. For instance, Spring Water Temple refers to Tampak Siring Temple in Gianyar, Bali, where locals and tourists can bathe in holy spring water of the temple. The discussion also mentions Besakih Temple, the largest and holiest Hindu temple in Bali. The underwater temple also presents in group 3, indicating quite an interest in the destination. Furthermore, account @wtimage and @ExpIorelife are the prominent accounts in group 2 and group 3, respectively.

Both of them are traveling account that actively posts tourism destination photos and captions. Additionally, the hashtags predominantly used in the entire graph are: #indonesia, #travel, #bali, #travelalberto, #temple, #hinduismabroad, #java, #familytravel in order.

In conclusion, people largely refer to Balinese temple when talking about "Temple" in Indonesia. Bali temples become the most talked about among Twitter users. Considering that the discussions were not ignited by Indonesian tourism ministry (@indtravel), it seemed that the interest was genuine.

Meanwhile, within the "Surf" topic, positive sentiments (345 positive words) also overcome negative sentiments (179 negative words). Due to small dataset, the software only managed to cluster the data into 9 groups.

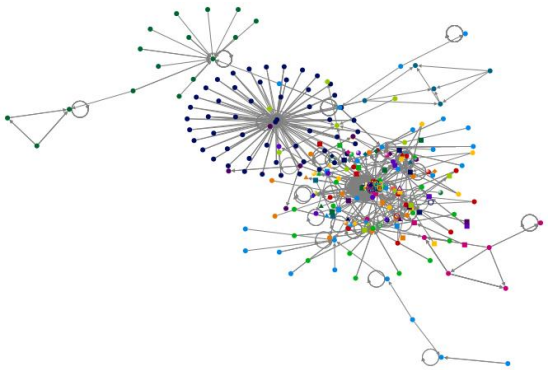


Figure 5. Twitter conversation network about "Surf"

As shown by the figure, Twitter network of "Surf" topic is more dispersed and less connected than "Temple" network. The 9 groups are loosely separated, because they share less similar discussion.

Top Word Pairs in Entire Graph	Entire Graph Count
bali,Indonesia	112
indonesia,surf	70
surf,bali	68
indonesia,paradise	61
wonderfulindonesia,photo	58
surf,massive	57
massive,breaks	57
breaks,trek	57
trek,up	57
up,steep	57

Table 7. Top word pairs in entire "Surf" network.

In the entire graph, the group networks revolved around a tweet: "Surf massive breaks or trek up steep volcanic peaks at Lombok …" (@indtravel, February 9, 2017). But as the figure showed, the engagement is likely to be one-way and no further than retweet.

Top Word Pairs in Tweet in G1	G1 Count
wonderfulindonesia,photo	54
rt,indtravel	53
surf,massive	52
massive,breaks	52
breaks,trek	52
trek,up	52
up,steep	52
steep,volcanic	52
volcanic,peaks	52
peaks,Lombok	52

Table 8. Top word pairs in Group 1.

The prominent word pairings in group 1 mimic the overall group. It can be seen that the top words in entire network largely originated from group 1.

Top Word Pairs in Tweet in G2	G2 Count
volcom,surf	8
indonesia,surf	8
surf,trip	7
bali,Indonesia	7
road,trip	6
trip,indo	6
indo,w	6
w,locals	6
locals,watch	6
watch,'eastern	6

Table 9. Top word pairs in Group 2.

The second group does not give much insight, except that it reveals promotional posts from Volcom, a lifestyle brand that sells boardsports products. Bali is once again mentioned as top word pairs, not surprising since Bali is famous for its beaches. It is also possible that the twitter users surf with the locals, hence the word "locals" is also mentioned in the network although not frequent.

Top Word Pairs in Tweet in G3	G3 Count
rt,perfect_wave	12
surfing,surftrip	11
hollow,trees	7
treasure,island	7
island,banyaks	7
banyaks,perfection	7
perfection,easy	7
easy,pitted	7
pitted,surfing	7
surftrip,theperfectwave	7

Table 10. Top word pairs in Group 3.

In group three, another destination is revealed: Banyak Island, a group of islands on the coast of Sumatra Island, in the far west of Indonesia. An Australian travel company, @perfect_wave also presented in the group. Once, the company promoted Hollow Trees resort in Mentawai Island, Indonesia. The word pairs seem to be in promotional nature. Moreover, "pitted" indicates surfing moves where the person purposely placed himself/herself inside a barreling wave. In addition, the hashtags predominantly used in the entire graph are: #surf, #indonesia, #bali, #beach, #surfing, #wonderfulindonesia, #paradise, #love in order.

Overall, it can be concluded that "Surf" topic could not really foster engagement. The engagements were mostly retweet of popular account's post. Once again, Bali seems to be most talked in the network, although not elaborated. Instead, conversation about Banyak Islands reveals more about wave condition there, for instance enabling surfers to do "pitted" surfing in perfection.

However, not all of the words can be used as some of them do not really correlate with each other (e.g. Banyak Island and Bali Island are two different places, miles away from each other and have unique culture). Therefore, for the purpose of this study, only some correlating words are used to represent the idea of SMO. The optimized words from the most popular conversation are as follows:

- Temple
- Indonesia
- Bali (Island) / Balinese.
- Tampak Siring temple / holy spring
- Besakih temple, a temple in Bali.
- Hidden underwater temple
- Spring water
- Temple in Gianyar, an area of Bali
- Ceremony

Meanwhile, the optimized words from the least popular conversation are:

- Surfing
- Indonesia
- Bali / Balinese
- Sea / ocean
- Water sports
- Pitted surfing
- Massive waves
- Breaking waves
- Waves

Although words from the second group were less than the first, it will be overcome by repeating the words in content construction.

4.2 Conversation steering

The second part of the tactic is conversation steering, whereby contents were created based on analysis provided by previous step. The designs were made using combination of the degree of tactic's usage (non-usage, used optimized words from the most popular conversation, used optimized words from the least popular conversation) and three digital contents (listicle, photo gallery, video). Because both of the conversations are mostly about Bali, an island in Indonesia with distinct Hindu culture, the contents were designed in accordance to it. The tone of the contents is relational, where content creator does not explicitly promote traveling to Indonesia (promotional) or the organization (the ministry).

To prevent the effect coming from other than the manipulations, the designs were made in a similar way. Materials for photos and videos in this research were provided by The Ministry of Tourism of Republic Indonesia, used with permission for educational purposes only. As such, there was no significant difference for the shooting technique and quality of the materials. The fonts, layouts, length, and music are the same throughout the content designs. It can be constructed as follows:

4.2.1 Listicles (Short article containing list)

There are six lists in this article. In the non-usage group, the article writes about Indonesia in general without mentioning any optimized words. Meanwhile, second group of article uses words from "Temple" topic. The last article mentioned words about surfing in Bali. Manipulations for optimized words are highlighted in red to differentiate from non-usage group. Below are some of the excerpts:

a. Listicle without any optimized words
“An Indonesian Guide to Perfect Harmony”

Balance and harmony are central concepts in many folk culture in Indonesia. Only by maintaining balance and harmony in our lives, then we can attain peace and happiness. This philosophy is expressed through several things which you, too, can do.

1. *Honor the God*

Many cultures in Indonesia celebrate life through ceremonies and rituals. It is how they honor the God and their ancestors. Ceremony can last for days, in which the people give the deities large amounts of offerings, ranging from colourful foods to music and dance performance. Praying and rituals remind people to maintain a balance of good and evil to prevent chaos.

2. *Cleanse yourself*

Many folk people in Indonesia believe in purification ritual. Usually, it is done in pond or river, where you can bathe yourself in the fresh water. Ancient spring is thought to be able to purify our mind and soul from bad influences in life.

3. *Dare to explore the unknown*

Try to do something you've never done before, and do it to venture into the unknown. Exploring hidden places such as tropical forest in Indonesia will help you to overcome your natural fear of the unknown. In the end, you will emerge as a fearless person, ready to face new challenges.

b. Listicle with optimized words from most popular conversation (“Temple”)
“A Balinese Guide to Perfect Harmony”

Balance and harmony are central concepts in Balinese culture. Only by maintaining balance and harmony in our lives, then we can attain peace and happiness. This philosophy is expressed through several things which you, too, can do.

1. *Honor the God in Bali temple*

Balinese celebrate life through ceremonies and rituals. It is how they honor the God and their ancestors. Temple ceremony can last for days, in which the Balinese give the deities large amounts of offerings, ranging from colourful foods to music and dance performance. Praying and rituals remind people to maintain a balance of good and evil to prevent chaos. In Besakih temple, the grandest temple in Bali, at least there are seventy festivals every year in which you can partake.

2. *Cleanse yourself in holy spring temple*

Balinese people believe in purification ritual. Usually, it is done in Tirta Empul temple, where you can bathe yourself in the temple pond. The pond releases fresh water considered to be holy. Located in Tampak Siring, the holy spring is thought to be able to purify our mind and soul from bad influences in life.

3. *Dare to explore the unknown*

Try to do something you've never done before, and do it to venture into the unknown. Exploring hidden place such as underwater temple in Pemuteran, Bali will help you to overcome your natural fear of the unknown. In the end, you will emerge as a fearless person, ready to face new challenges.

c. Listicle with optimized words from least popular conversation (“Surfing”)
A Balinese Guide to Perfect Harmony

Balance and harmony are central concepts in Balinese culture. Only by maintaining balance and harmony in our lives, then we can attain peace and happiness. This philosophy is expressed through several things which you, too, can do.

1. *Honor the God through nature*

Balinese celebrate life through ceremonies and rituals. It is how they honor the God and their ancestors. Religious ceremony can last for days, in which the Balinese give the deities large amounts of offerings, ranging from colourful foods to music and dance performance. Nature is important to Balinese belief. For instance, to honor the sea God, Balinese built Tanah lot, a shrine over offshore rock amid breaking waves of the ocean.

2. *Cleanse yourself in the water*

Balinese people believe in purification ritual. Usually, it is done in the sea, where you can bathe yourself in the water. Water is thought to be able to purify our mind and soul from bad influences in life. Balinese people's love affairs with the water result in water sports such as surfing. The fresh waves of Bali will set your mind loose.

3. *Dare to explore the unknown*

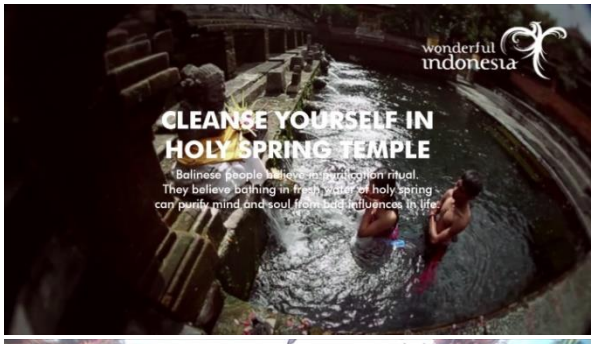
Try to do something you've never done before, and do it to venture into the unknown. For instance, doing pitted surfing where you surf inside the massive barrelling waves of Bali! Exploring something you've never done before will help you to overcome your natural fear of the unknown. In the end, you will emerge as a fearless person, ready to face new challenges.

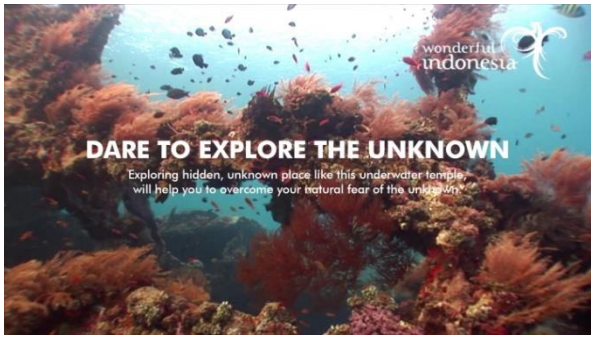
4.2.2 Photo gallery

Referring to listicle materials, photo gallery contains six pictures with two-sentence captions. In photo gallery without the tactic, the manipulations show images of Indonesia in general without correlation to Bali Island and the optimized words. Meanwhile, the second group depicts Bali-related images with words from “Temple” topic. The last group portrays Bali with optimized words from “Surfing” topic. Below are some of the photos used:

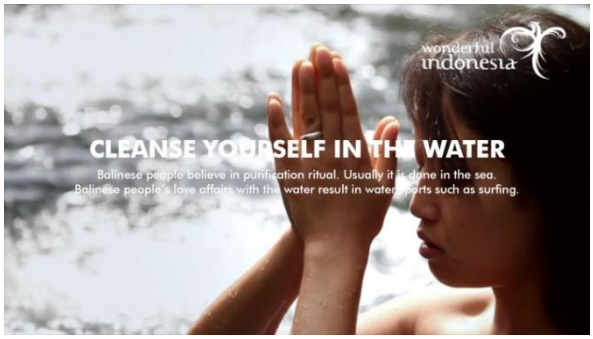
a. Photo gallery without any optimized words

b. Photo gallery with optimized words from the most popular conversation





c. Photo gallery with optimized words from the least popular conversation



4.2.3 Short video

Likewise, the videos used materials from listicles. All of them have a same length of 1 minute 37 seconds. First group depicts Indonesia without referencing to Bali Island and optimized words. Whereas, in video with optimized words from the most popular conversation, Bali-related images with words from "Temple" topic are portrayed. The last group depicts Bali-related images but with optimized words about "Surfing" topic. Below are the design:

a. Video without any optimized words: https://youtu.be/xwSqyRY80Do
b. Video with optimized words from the most popular conversation: https://youtu.be/lEt7DtA7aRA
c. Video with optimized words from the least popular conversation: https://youtu.be/PAQtbX8XQGw

4.2.4 Design

To obtain experimental realism, each of the content are designed like a Twitter post of @indtravel. The Twitter post will be presented first before the respondents are presented with the actual content.

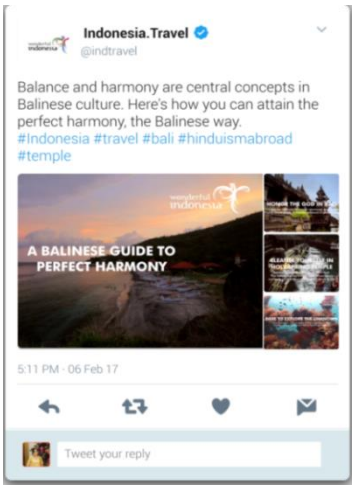


Figure 6. Twitter post mockup of photo gallery content[7]

4.3 Evaluative experiment

The second research question asks about the effect of Conversation-driven SMO tactic on user engagement. To answer this, an experiment was done following Conversation Steering stage.

4.3.1 Manipulation check

Before the experiment was conducted, the stimuli were checked if they were manipulated correctly. 5 people of different nationalities participated. They were assigned randomly to one of the manipulations, then presented with the entire question from measurements (5-point Likert scale), question pertaining realism (multiple choice), multiple choice about the content they were presented with, and an open question about 5 words they are likely to use if they discuss about the content on Twitter.

All of them said that the content was realistic. 3 people answered correctly about the content type. From t-test, it was shown that there were statistical significant differences between the stimulus ($t(4) = 3.959$, $p = 0.017$), respondents' cognitive processing ($t(4) = 6.572$, $p = 0.003$), affective states ($t(4) = 13.860$, $p = 0.000$), direct engagement ($t(4) = 10.108$, $p = 0.001$), and word-of-mouth intention ($t(4) = 6.194$, $p = 0.003$). In conclusion, it can be said that respondents could differentiate the manipulations, and the manipulations worked well. In addition, they could point out the optimized words even without realizing (e.g. temple, surfing, Bali). Thus, research could go on with the manipulations and questions.

4.3.2 Respondents distribution of survey

322 respondents fully completed the survey, of which 317 responses were useful to this research. All participants were randomly assigned to one of the nine stimuli conditions.

Female respondents made up 58% of the population (n = 184). The majority of the respondents belonged to 19-29 age group (n = 252, 79%), followed by 30-39 age group (n = 52, 16%). Most participants were highly educated, citing Bachelor studies as their last education (n = 200, 63%), followed by Master studies (n = 75, 23%). In total, respondents of Indonesian origin made up most of the population (n = 272, 85%), followed by the Dutch (n = 13, 0.041%), while others belonged to various countries such as Germany (n = 8, 0.025%).

The respondents were checked whether their backgrounds differ significantly between each other across the 9 stimuli. Kruskal-Wallis test revealed that the respondents did not differ significantly in terms of their gender ($p = 0.540$), age group ($p = 0.232$), latest education (0.159), country of origin ($p = 0.315$), and familiarity with Twitter ($p = 0.703$). Due to similar background of respondents and even distribution, any significant effect of the dependent variables could be attributed to the independent variable.

4.3.3 Hypotheses testing

The main effect of the independent variable was tested using MANOVA. MANCOVA was performed to examine whether the covariate could moderate the effect. Multiple linear regression analysis was executed to test the mediating effect. At last, LSD post-hoc analysis was used on to see which of the content design was able to solicit the greatest response. An alpha of 0.05 was used for all tests.

4.3.3.1 Main effect of "Use of Conversation-driven SMO"

Without the "enthusiasm" as covariate, there was a statistical significant effect of using Conversation-driven SMO tactic in content creation on the combined dependent variables (($F(32, 1111.628) = 1.549$, $p = 0.020$, Wilks' $\lambda = 0.848$). Interestingly, between-subjects test revealed that there is only marginally significant effect between the tactic's usage to respondents' cognitive processing ($F(8, 304) = 1.878$, $p = 0.063$). No effect was found on direct engagement ($F(8, 304) = 1.711$, $p = 0.095$). Moreover, there was a clear tendency toward significant effect to affective states ($F(8, 304) = 1.942$, $p = 0.054$) and a significant effect to word-of-mouth intention ($F(8, 304) = 2.477$, $p = 0.013$).

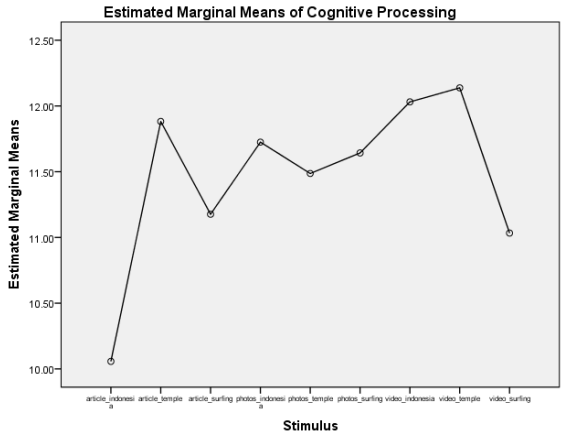
When "enthusiasm" was included as the covariate, there was an increase of effect to the combined dependent variables ($F(32, 1104.253) = 1.620$, $p = 0.016$). Furthermore, there is an increase of effect to participants' cognitive processing ($F(8, 302) = 2.076$, $p = 0.038$) and affective states ($F(8, 302) = 2.094$, $p = 0.036$), even b became statistically significant. The effect of using Conversation-driven SMO tactic in content creation on word-of-mouth intention was still statistically significant, even increased slightly ($F(8, 302) = 2.521$, $p = 0.011$).

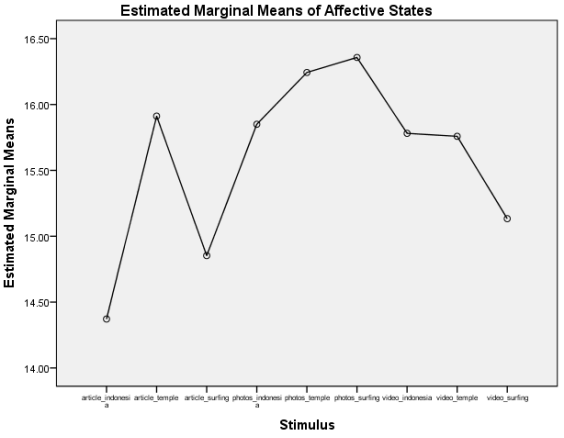
[7] Every design followed the real preview of Twitter media

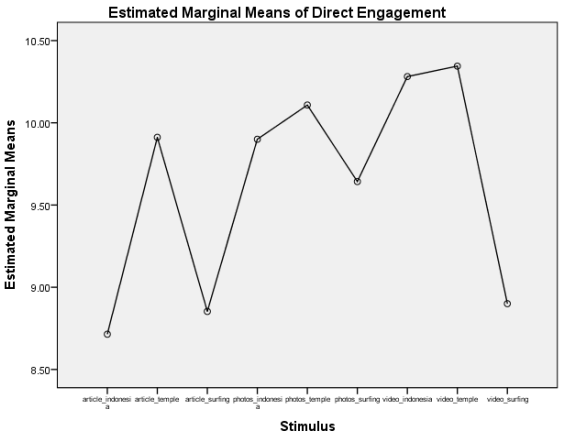
However, there was still no effect on direct engagement ($F(8, 302) = 1.829$, $p = 0.071$).

LSD post-hoc analysis revealed, contents that have optimized words from most popular conversation were able to elicit better response in cognitive processing, affective states, direct engagement, and word-of-mouth intention. Upon examining the graphs[8], video with optimized words from most popular conversation ("Temple") solicits the best overall responses, with the exception of word-of-mouth intention which best evoked by photo with the same topic. On the contrary, affective states were better evoked by photo with optimized words from least popular conversation ("Surfing").

In conclusion, the first hypothesis is partially supported. Since the tactic only had significant effect on word-of-mouth intention, hypothesis 1.iv is fully supported, while hypothesis 1.i and 1.ii are only partially supported. On the other hand, hypothesis 1.iii is not supported at all. Furthermore, due to an increase of effect to the dependent variables overall and one by one, the second hypothesis is supported.







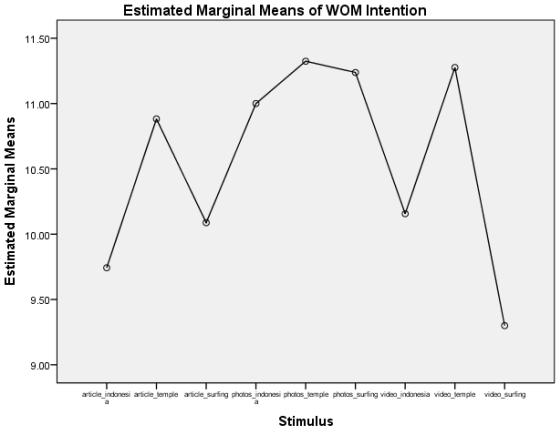


Figure 7-10. Post-hoc graph of Stimulus x User engagement

4.3.3.2 Mediating effect of "Engaging Level"

Multiple linear regression analysis was run to see if the extent to which people find the content engaging, could predict the dependent variables. "Engaging level" significantly predicted cognitive processing ($F(1, 308) = 93.887$, $p = 0.00$, $R^2 = 0.234$), affective states ($F(1, 307) = 13.746$, $p = 0.00$, $R^2 = 0.310$), direct engagement ($F(1, 307) = 60.837$, $p = 0.00$, $R^2 = 0.165$), and word-of-mouth intention ($F(1, 307) = 80.133$, $p = 0.00$, $R^2 = 0.207$).

Due to the data type of independent variable, MANCOVA was used once again to test if "Engaging level" can predict the effect of Conversation-driven SMO tactic to the dependent variables. However, it was found that "Engaging level" could not mediate the effect of Social Media Content Optimization on combined variables ($F(32, 1085.814) = 1.323$, $p = 0.109$, Wilks' $\lambda = 0.868$). It also could not mediate the effect of independent variable to respondents' cognitive processing ($F(8, 297) = 1.270$, $p = 0.259$), affective states ($F(8, 297) = 0.712$, $p = 0.681$), direct engagement ($F(8, 297) = 1.271$, $p = 0.258$), and word-of-mouth intention ($F(8, 297) = 1.338$, $p = 0.224$). This means, the main effect does not depend on engaging level of the content itself. Thus, the second hypothesis is not supported.

[8] Stimulus name left to right: article_indonesia (non-usage), article_temple, article_surfing, photo_indonesia (non-usage), photo_temple, photo_surfing, video_indonesia (non-usage), video_temple, video_surfing

Hypotheses	Results
H1: The use of Conversation-driven SMO tactic in content creation significantly affects user engagement in their (i) cognitive processing, (ii) affective states, (iii) direct engagement, and (iv) word-of-mouth intention.	H1 supported H1.i partially supported H1.ii partially supported H1.iii not supported H1.iv supported
H2: The combination of video and words from the most popular Twitter conversation has the best effect on user engagement in their (i) cognitive processing, (ii) affective states, (iii) direct engagement, and (iv) word-of-mouth intention, compared to other combination.	H2 supported H2.i supported H2.ii not supported H2.iii supported H2.iv supported
H3: The extent to which content is deemed engaging mediates the effect of using Conversation-driven SMO tactic on user engagement in their (i) cognitive processing, (ii) affective states, (iii) direct engagement, and (iv) word-of-mouth intention.	H3 not supported
H4: Enthusiasm to travel moderates the effect of using Conversation-driven SMO tactic on user engagement in their (i) cognitive processing, (ii) affective states, (iii) direct engagement, and (iv) word-of-mouth intention.	H4 supported H4.i supported H4.ii supported H4.iii not supported H4.iv supported

Table 11. Summary of evaluative experiment results

5. DISCUSSION

5.1 General discussion

Earlier in this study, researcher presented two problems in content marketing that arguably contribute to less user engagement. First, the lack of benchmark in content marketing. Second, the need for user-centric approach in content creation.

The first research question addresses the problem by introducing Conversation-driven SMO tactic. It is an unprecedented tactic to create social media contents that people actually want to engage with. In this tactic, two steps were conducted: Conversation Mining and Analysis and Conversation Steering. It is argued that the content output, created from popular conversation in social media, can invoke more user engagement than content produced without the tactic. The social media being studied is Twitter, with enthusiasm to travel as the moderator and the engaging level of the content itself acts as mediator of the variables.

In the Conversation Mining and Analysis step, Twitter posts revealed what people are mostly interested about Indonesian tourism. The data gathered from Twitter revealed that users are largely interested with Bali Island, the most famous island in Indonesia. In the most popular conversation, the discussion revolves around destinations in Bali, particularly the features of its famous temples. On the other hand, the least popular conversation is about surfing in Bali. However, it is more concerned about surfing styles.

It is interesting that the most popular conversation is shown to be Balinese temples, not Indonesian festival as suggested by the large amount of Twitter post. Compared to "Temple" topic, topic about "Festival" generated fewer amounts of sharing and comment.

Upon examining the Twitter data, it was gauged that topic about "Festival" largely revolved around promotional tweets or spams that promote certain festival. This is also the case with "Surfing" topic, the least popular topic in the whole dataset. From semantic analysis, it was found that "Surfing" topic was largely promotional in nature. On the contrary, Twitter posts in "Temple" topic are mostly user-generated posts from several popular influencers, for instance account @rohinimithra.

Previously, it was mentioned that promotional contents are not likely to elicit engagement because it is considered untrustworthy by the users (Ahuja & Medury, 2010, Setiawan & Savitry, 2016, Pulizzi, 2012). It is highly likely that "Festival" topic received fewer engagements because of this. Therefore, the findings support the notion that social media users are more likely to engage with non-promotional content.

The analysis provides a basis for the next step of Conversation-driven SMO tactic, which is Conversation Steering. In this stage, nine combinations of contents were constructed using the degree of the tactic's usage, ranging from non-usage to use with most popular conversation.

Nevertheless, it is not enough that we settle for this. To answer the second research question and determine the effectiveness, contents produced using Conversation-driven SMO tactic was tested for their ability to provoke user engagement. The result shows that generally, using this tactic in content creation has a significant effect on collective dimension of user engagement. However, upon further examination, it was found that using this tactic would only affect word-of-mouth intention, a behavioral dimension of engagement. Cognitively and affectively, users were only affected partially.

Interestingly, while Dessart, Veloutsou, and Morgan-Thomas (2015) suggested that the dimensions of engagement are related, the findings do not seem to agree. People may not think thoroughly about the content (cognitive processing), or really like the content (affective states), but they are willing to share positive things about the content to others (word-of-mouth intention) nonetheless. This probably has something to do with modern people's shorter attention span nowadays. A research by Microsoft (2015) revealed that the average attention span of people in year 2000 is 12 seconds, while now it has decreased into 8 seconds. Shorter attention span may contribute to less cognitive thinking and emotions processing.

Furthermore, although users are interested to share the content or talk about the content in positive way, they do not seem to be interested in giving

immediate feedback. For instance by replying, favoriting the content, and following the account where the content was published. Thus, the engagement seems to be limited to a more passive and offline way, rather than online. The outcome of this tactic could be a chain of sharing behavior, instead of increase of followers in social media.

Enthusiasm is thought as an important dimension of user engagement (Vivek et al., 2014), which could possibly affect word-of-mouth intention. The study confirms by showing that enthusiasm to travel moderates the effect of using the tactic on word-of-mouth intention, even cognitive processing and affective states as well.

Enthusiasm motivates people to overcome difficulties or obstacles in participating, thus enthusiastic users are more likely to explore the object of focus with their mind and emotion (Vivek, 2009). It explains why enthusiastic users are more likely to overcome the short attention span common in modern people, and engage more in cognitive processing, at the same time enabling them to feel more emotions. However, even innate enthusiasm could not drive people to provide immediate feedback to the social media post.

Previously, it was mentioned that the inherent engaging level of content could pave the way toward user engagement and commitment (Sadoski, Goetz, Rodriguez, 2000). Arguably, if people think the content is engaging, it would increase their engagement to the content. Engaging level is measured by the degree of interestingness and the extent to which people find the content engaging.

The findings revealed the contrary. Even though engaging level predicts all dimension of user engagement, it could not mediate the effect of the tactic to the dependent variables. Hence, it can be said that the effect does not depend on the inherent engaging level of the content itself. People could think that the content is not too engaging, but the tactic would still have an effect nonetheless.

Media Richness Theory suggested that content should match its channel of deliverance, in order to resolve ambiguity and reduce complexity (Daft & Lengel, 1986, 1988). The raw Twitter data compiled in this research is ambiguous in nature. The popular words have to be interpreted within specific context. According to Ebbers, Pieterson, and Noordman (2008), complexity should be addressed by giving written explanation while ambiguity could be resolved by visual storytelling. As the data is ambiguous in nature, visual storytelling is more appropriate to convey the information. The suggestion is corroborated in this research, as video content is found to be the best media to convey the information. Combined with optimized words from the most popular conversation, video appears to be the most effective content to provoke engagement.

Following video, photo content (visual-based) is found to be better at delivering the information, compared to textual-based content such as article. As an audio-visual content, video considered rich medium and naturally, could better tell a story. Thus, it is the best option among the three media. Interestingly, although article content generally scores lower compared to other media format, when embedded with optimized words from the most popular conversation, it could perform better than article without the optimized words.

Words from "Temple" topic indeed performed better in soliciting user engagement compared to "Surfing" topic. Previously in the Conversation Mining and Analysis part, the Twitter data showed that "Surfing" topic could not provoke engagement as much as "Temple" topic. The result was replicated in the experiment, corroborating Twitter data in the real life. This also proves that data from the most popular conversation better resonates with general audience, thus drive more engagement to the content.

5.2 Implications

The implications below demonstrate the impacts of this research.

5.2.1 Theoretical implications

This research extends the scope of social science research, particularly marketing communication beyond traditional means. By employing data mining, this study bridges the gap between technical science and social science. The technical aspects were clearly written, thus could be followed by other social scientist as well.

Moreover, evaluative experiment contributes to communication studies by adding findings to marketing communication field. Prior to this study, there were no clear determinants of user engagement with regard to social media content. User enthusiasm was also rarely used as the moderator of user engagement. Thus, the findings set a benchmark and extend prior research in this regard.

The highlight of this research is Conversation-driven SMO tactic. The generality of this tactic makes it applicable to study digital contents in other social media platforms. Academically speaking, this tactic provides an unprecedented framework about engaging content and the impact to user engagement.

5.2.2 Managerial implications

The heart of this study is Conversation-driven SMO tactic. Given the practicality and proven effect on user engagement, the tactic provides high significance for digital marketing practitioner and tourism marketers.

Most marketers are storytellers that tell the brand story through content marketing. However, the lack of formula and benchmark makes the effectiveness of each campaign may vary. With this tactic, effectiveness of each campaign can be predicted.

This user-centric tactic provides an alternative for digital marketers that often too focused on trends at large, like terms supplied by Google Trends or Google Keyword Planner. Sometimes, practitioner needs a "magnifying glass" like looking into conversation in small groups of network, in order to gauge real insight from real conversation.

The research discovers that video is the best content, and when imbued with optimized words from the most popular conversation in social media, it has proven to be the most effective media to drive user engagement. On the other hand, article is proved to be less effective in general. But when it is also embedded with optimized words from popular conversation, the significance rises. Marketers should take this into account when designing the campaign.

Considering that relational contents are the ones that provoke more engagement, practitioner should be less obvious in their promotional content. Even better, creating more relational content that address users' needs, rather than large amount of promotional contents.

At last, since the study employs tourism as a context, it can be direct reference to content creation in tourism industry. Tourism is complex as the product itself is intangible. Hence, engaging travel content can create a chain of referral and could act as free advertising for the destination.

5.3 Limitation and further research direction

There are several limitations to this study. Some with regard to the methodology and others are about the context of study.

From the methodology aspect, the first limitation comes from sampling methodology. This study used snowball sampling, thus are prone to selection bias. It is observed from oversampled Indonesian population and respondents from researcher's own age group (19-29 years old). Since the stimuli are about Indonesian tourism, the oversampled Indonesians probably contribute to high affective states toward the stimuli.

This study used Twitter as social media of interest. Twitter is known as a fast-paced media, where there is a change of trending topic daily, even hourly. This makes compiling Twitter posts is quite hard. The dataset is prone to be 'contaminated' with the trend at that moment, which may not be relevant to the context of interest, but automatically extracted because it used the same words.

Twitter also poses some problems like spams and robot Tweets that posts promotional posts from empty or fake account. This is the case with "Festival" topic, where plenty of the posts in this topic are spam and promotional. Therefore, marketers are advised to closely pay attention to the quantitative measurement of popularity.

Future research can address the first problem by expanding the respondents. It would be interesting to see if the tactic can have an effect on people of more diverse backgrounds.

As the tactic is quite unprecedented, it is advised that digital marketers and tourism marketers could apply to different context and other social media beside Twitter. For instance, brand-related context that studied through Facebook posts. It is fascinating to see the extent of the tactic's effects.

Digital marketers are also encouraged to explore the ways to conduct Conversation Mining and Analysis. There is plenty of software available to do data mining, not just NodeXL.

Overall, the evaluative experiment proved to be a good measurement of the tactic's effect. In the future, the tactic's effect should always be measured to maintain the effectiveness. It is also possible to be included in the tactic as well. For researcher, experiment with statistical analysis could be used. For practitioner, social media metrics such as clicks, retweet and reply (for Twitter), reach and comments (for Facebook) would be more appropriate.

6. CONCLUSION AND ACKNOWLEDGEMENT

6.1 Conclusion

Creating an engaging content in social media has never been an easy task. Lack of framework in content marketing makes digital marketer often has to rely on creativity alone. However, creativity alone is not enough in this field. In order to create an effective campaign, it is imperative that digital marketing practitioner possesses user insights to complement the creative process.

This is what Conversation-driven SMO tactic proposes: a clear framework to develop social media contents which are effective to foster user engagement. The main idea is the crossing of digital contents with popular conversation in social media where the content will be distributed.

Earlier in this study, a question about the tactic was posited, along with the way it can be used to develop user-centric social media contents. The following points highlight what the tactic is about:

1. Conversation Mining and Analysis: data mining extraction using text-mining method, semantic network analysis, quantitative popularity measurement.
2. Conversation Steering: content creation, crossing of social media content formats with optimized words from previous step.

The tactic develops user-centric social media content by taking into account user's thoughts that were expressed through conversation in their social media. This way, user-centric contents can be ensured.

Moreover, the tactic hinges on a particular context of interest, in this case Indonesian tourism.

Context was used as the basis to mine social media data and as the theme for content creation.

In this study, the first step collected a total of 88.551 Twitter posts. The analysis and measurement revealed that the most popular topic was Balinese temple. The least popular topic was about surfing in Bali. This step produced some unique words related to the topic, which were used subsequently.

Through the second step, researcher produced nine combinations of digital contents (listicle, photo gallery, and video) with the degree of the tactic's usage (non-usage, used with least popular conversation, no optimized words, used with most popular conversation).

The second research question inquired about the effect of using the tactic in content creation to user engagement. This was answered by conducting an evaluative experiment of the tactic's usage to the dimensions of user engagement (cognitive, affective, direct engagement, word-of-mouth intention).

The result shows that using the tactic affects user engagement in general, but more particularly their intention to spread word-of-mouth. For the tourism-related context, enthusiasm to travel has proved to be a good moderator, as it can moderate and explain the effect of Conversation-driven SMO tactic to user engagement—except for direct engagement (e.g. reply to the Twitter post). For other context, user enthusiasm still yet to be proven.

Furthermore, the discovery also posits that effectiveness of the tactic does not depend on the extent to which people perceive the content to be engaging. Interestingness and engaging level of the content itself is not relevant to the tactic's effect.

In conclusion, the study proves that for a content to be successful, it has to draw on people's thoughts and aspiration. At last, it is important to note that content marketing is about creating content that people want, not what the creator wants.

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APPENDIX A

Questionnaire

Demographic questions

1. What is your gender?
   a. Male
   b. Female
2. What is your age?
   a. 19-29 years old
   b. 30-39 years old
   c. 40-49 years old
   d. 50-59 years old
   e. Above 60
3. What is your latest education?
   a. < High school
   b. High school
   c. Bachelor degree
   d. Master degree
   e. Doctorate degree
4. What is your country of origin? (open question)

Moderator questions

"How enthusiastic are you about traveling?"

1. I spend all of my discretionary time traveling
2. I am passionate about traveling
3. My days would not be the same about traveling

Mediator questions

"To what extent do you find the content engaging?"

1. I do not find the content interesting (negative answers were recoded)
2. I find the content engaging

User engagement questions

Cognitive processing

"What do you think about the content?"

1. Seeing this content gets me thinking about Indonesia travel
2. I think about Indonesia travel a lot when I see this content
3. Seeing this content stimulates my interest to learn about Indonesia travel

Affective states

"How do you feel about the content?"

1. I feel very positive when I see this content
2. Seeing this content makes me very happy
3. I don't feel good when I see this content (negative answers were recoded)
4. I'm proud to see this content

Direct engagement

"Twitter has several functions that a user can use to react to a post, such as reply (@), favorite (❤, formerly ★), and follow. Based on those functions, how would you like to react to the content?"

1. I would like to reply to this post
2. I would like to favorite this post
3. I would like to follow the account who posted this content

Word-of-mouth intention

"How would you talk about the content?"

1. I intend to share this content to other people (e.g. retweet, copy link, etc)
2. I would recommend this content for others to see
3. I would say positive things about this content to other people
4. I want to discuss the information I receive from the content to other people

Manipulation check

1. Do you think the content is realistic?
   a. Yes
   b. No
2. Please mention 5 things you would like to mention if you discuss about that content on Twitter (open question)
3. What was the type of content you're presented with?
   a. Article
   b. Picture
   c. Video

Note: All items are quantified using 5-point Likert scale, ranging from "Strongly disagree" to "Strongly agree".