# Measuring Customer Engagement in Social Media: The Uncovered Practice of SMEs in Malaysia

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Abstract-Contemporary marketing metaphors focus on customers in the brand community, hence measuring customer response on social media websites is positioned as an influential agenda for businesses. Measuring customer engagement in the cyber world can provide prerequisite signals for small businesses looking for long-term stability. However, previous studies and industry reports indicate a lack of valuable facts about measuring customer engagement as a result of social media efforts after advertising and campaign posts. This paper addresses the shortcomings by conducting a study for SMEs to identify approaches to measure customers and prospects on the branded sites they currently practice. The method conducted was a quantitative survey to uncover the measurement practice of 125 SMEs in selected states of Malaysia. At the post-descriptive analysis, the studied items have produced new and meaningful information on social media usage trends and their measurement initiatives. The current findings are discussed and expected to contribute to the knowledge base within the social media domain and industry players. Finally, two recommendations have generated; first, to support the progress of a similar study in the future and second, to forward the facts to the relevant authorities.

Index Terms—social media, measurement, customer engagement, brand page, SME, Malaysia.

### I. Introduction

Social technology allows access to a wider potential for customized or personalized offers [2].

Utilising social media alone without re-evaluating marketing efforts will not affect the current performance of firms on digital platforms. Firms have no choice but to practice the social media measurement as their strategic action with the aim of creating competitive advantage and business performance [2], [3]. The measurement process defined in this study covers the phase of measuring, explaining, and reporting the success of social media initiatives such as designing and advertising postings in various forms (text, image, audio, video) in the app panel to be in line with its objective of use and ultimately the business mission [4]. It also deals with the selection of appropriate metrics and producing insights within the format of reports. The recent marketing metaphor that reaches customercentric approach is an important agenda for businesses in order to evaluate the involvement of customers on branded sites of social media. As customers and prospects for brands are the

leading stakeholders in cyber platforms, the need to manage customer engagement is strongly emphasized by prior studies [5] - [7] and industry reports [8] - [10].

Metrics are a standard of measurement that serve as an integral component of accountability by concerning data and information from the past. [11] asserts that to measure performance in customer-business interactions, firms rely heavily on social platform-based metrics. In the usual practice of the measurement process on social media channels, quantitative approaches make the practice easy and improperly unused [12]. The characteristics of social media content that can be voted, linked, republished, broadcasted, and disseminated very quickly, have created wealth of information to subscribers in rates that affect digital metrics [11]. An easy example to take is when firms run product ads offering free gifts along with product purchases, these ads will usually attract loyal brand followers who want to share the benefits of purchasing with others. They will re-publish the product information with the modified content. Since they have social network connections within their own profile page, this invites the product information to be viral within a fast pace. The affected audiences will click the like, share, comment and other buttons on the app interface that calculates digital metrics and then signal to the brand that their advertising is being addressed.

Businesses should not blindly measure their social media endeavours without using proper knowledge and techniques. The Waterfall Strategy developed by [13] shows that the whole phase involved must be aligned. After establishing a clear corporate goal and forming a business mission that advocates the goal, marketing activities will be implemented on social media channels in accordance with specific plans and tactics. All activities should be measured by using appropriate metrics and have been planned in advance. It should be noted that the issue of measurement practices continues to trigger a debate between intellectuals and practitioners. They question the improper attention in using social media effectively by firms [14], [15]. Moreover, despite worth attention and profuse development from practitioners, the nascent academic literature on customer engagement presents the shortcomings particular in exploratory studies on characteristics that impacting such concept in the digital platform [16].

The obligation of social media measurement in the small business landscape, which was limitedly discussed in academician reviews and industry blueprints in the local context, is fostering this study to be conducted. Regardless of business size, sector, and industry groups, the paper focuses on non-transactional social media measurement activities in the SME environment situated in Malaysia. In line with the attention of Asian countries to the SME importance, such industries in Malaysia are also gaining recognition. As a major contributor to the national economic confirming 36.6% of GDP, 65.3% of employment, and 18.6% of exports from overall contribution [17], evidence shows that SMEs have continued to expand at a higher rate than large firms. Consequently, SMEs in Malaysia have been evaluated as appropriate and fair to be selected as the study population.

With the aim of conducting investigations on measurement practices and thereby meeting the lack of such reports in the Malaysian context, this paper aimed at capturing two key objectives; first, to expose the measurement practices on social media endeavours by Malaysian SMEs, and secondly, to understand the metrics and tools utilized for measuring customers involved in their branded sites. The remainder of this paper will commence from literature, the next section elaborates the study methodology, the following presents the findings as well as discussion, and the final section is a writeup about the study conclusion and recommendation.

#### II. LITERATURE REVIEW

# A. The sense of measuring customer engagement on social media

Modern firms are aware that their business life largely impacted by improvements in marketing techniques on social media. In this effort, many researchers support the refinement of metrics to measure the interactive nature of customers and brand relationships [7], [18], [19]. It is customary for SME marketers to use tangible metrics that are facilitated by the presence of the application panel interface in terms of visibility and traceability [12], [20]. This is one of the speediest ways to find out about their customers' interest in brands and related activities. For instance, within the Facebook context, one can find easily likes, comments, friends, friend requests, post shared, brand sentiment, trackbacks, page views, brand mention, number of reach per ads and much more.

In a complicated business-thought, the management will emphasise on sales revenue, leads conversion, cost reduction, news feed view, loyalty card membership, just to name a few, as a way to dig performance insights. Intangible metrics, notwithstanding, are reflecting non-financial impact and contemplated difficult to be formulated as it is used to assess elements that will produce output in the long term [2]. The examples of crucial intangible metrics, besides advocacy, customer satisfaction, impact, conversation velocity, and community growth, are customer engagement. Yet, these measures are very significant to find outcome values needed by firms that are looking for better improvement and performance.

Engagements are far the most important in the firm's choice to measure returns on social media [21]. Considering the significance, the determination of metrics on customer engagement is exceedingly essential [22]. Small businesses running social media marketing initiatives prioritize online customer relationships and anticipate the movement of their proactive behaviour on brand sites. In the scope of social media platform, this study defines customer engagement as customers' actions who are having brands focus, allow firms to involve specific interactive experiences within the online community, consequently build long-term relationships, and create more meaningful and sustainable interactions between brands, brand communities, or among customers, being motivated by several drivers [7].

#### B. Impact of eWOM as a cause of measurement need

Customarily, community members who communicate about brands in the social media community are loyal customers, new and existing customers of products and services, and information seekers who expect product reviews and knowledge shared by their peers [23]. This study has a focus on business-to-customer (B2C) interaction for the community parties discussed. [24] categorize the building blocks of a brand community into four relationships: customer-product, customer-brand, customer-firm, and customer-other customers. Collaboration between members at various levels has created the concept of sharing, proposing, and helping to complement their demands for the brand through a reputable platform called electronic Word of Mouth (eWOM).

The influence of customers and prospects is very energetic on social media. It occurs in eWOM when brands and firms are incapable of controlling the multilateral communication that occurs [25]. To date, brands and management levels of SMEs have been overwhelmed by the challenge of truly understanding the precise mechanisms for measuring customer preferences and reactions. The presence of eWOM in the brand community stimulates a variety of digital communications among media contacts and influences many decisions in engagement, product interest, and purchasing direction, as well as customer loyalty. However, brands must provide specific plans and strategies for managing customers and addressing community attitudes on brand pages. Because customers can influence each other's attitudes and behaviours [26], SME marketers should be attentive and listen to the demands of social media networks to understand their behaviour in the online community. Some of the approaches proposed in the following subsections provide SMEs with the compliance to handle such matters.

# *C. What should businesses matter with the customer engagement measurement?*

Entrepreneurs in the real-world SME industry concerned with the results of social media marketing efforts continue to find the right and cost-effective way to value these relationships and achieve the desired benefits for them and their customers. The first and foremost step for SMEs to consider is to set the firm's online marketing objectives and Key Performance Indicator (KPI) in place. Some guidelines suggested by previous researchers and are appropriate for adoption by marketers who monitor their operations on social media (see [4], [13]). While SMEs need to adjust the guidelines to restructure their budgets, technical skills, and related needs, they are still useful to serve marketers and decision-makers in SMEs.

Careful selection of channels, methods and tactics in the field of social media is an essential aspect for SMEs. Using channels that have the broader reach of potentials and effective methods such as paid advertising on Facebook, marketers can use voice tracking and market trend monitoring [27]. Examples of activities for voice tracking are such as marketers listening to the customer experience and responding appropriately to the Facebook brand page. Meanwhile, firms often use analytical tools in applications, for example, Facebook Insight, to leverage industry patterns that recognize market strengths and weaknesses when monitoring trends.

SMEs should have a keen focus on satisfying content marketing while considering an informative, entertaining, and engaging post on branded sites [6]. The subject is to address the problem of user-generated content that is a great challenge to marketers in social media. The firm must place a strategic plan into action by adjusting existing practices across the communication spectrum in engagement [28]. Uniqueness characteristics of eWOM have created opportunities for SMEs to embark techniques such as segmentation and viral marketing. In the case of segmentation, the proper way of measuring engagement could lead to ability in filtering the brand's most important customers. In consideration of viral marketing, brands can specify such customers to be influencers to attract the potential audience as buyers or product users. Normally these personals have engaged with brands and satisfied with the products or services consumed.

As the measurement practices used are sufficient to incorporate strategies in marketing procedures [13], [29], it is imperative for SMEs to continually map their measurement practice decisions to their corporate goals and objectives. Past research found that SMEs do not understand measurement techniques effectively [30], therefore they must strive to implement them earnestly and consistently to compete strategically with competitors in the digital field. Based on the metric selection, firms are recommended to bring a more efficient approach to customer measurement through a combination of qualitative and quantitative measures [31].

#### III. METHODOLOGY

The study aims to explore SMEs' tradition to evaluate customers online at social media brand sites. In specific, the sample refers to SMEs in central and southern boundaries of Peninsular Malaysia that are leveraging digital marketing on social media using branded pages. The SME Annual Report 2016/17 shows that the focus of overall SME activity in Malaysia is centered on six states surveyed with 50.8% representation (Selangor: 19.8%; WP Kuala Lumpur: 14.7%; Johor: 10.8%; Negeri Sembilan: 3.6%; Malacca: 3.5%; WP Putrajaya: 0.1%). The conducted preliminary interview with the officer of SME Corporation Malaysia in the head-quarter office has confirmed the suitability of the population. Moreover, firms in this area widely dispersed in terms of size, sector, and industry type.

While SME Annual Report 2016/17 reports a rise in social media for brand advertisement, up by a recent percentage of 85.4% (78.20% in 2016, 12.10% in 2014), there was no precise number of SME using social media for the marketing realm from the authorized body. Additionally, such studies also do not report the amount of use of social media by states, leaving the population under study with no sampling frame. However, since the study objective focuses on the investigation of the measurement practices on social media endeavours by Malaysian SMEs and their metrics utilization on apps dashboard which requires only descriptive analysis, the absence of sampling frame is not an issue for data sampling procedures. Following the recommendation of [32], this study defines its sampling frame according to the following definition: SMEs that leverage social media for online marketing and have designed their corporate pages to interact with the brand community. Accordingly, the survey was conducted using convenient sampling concerning [33] who stated that descriptive analysis requires the minimum 100 respondents.

The questionnaire was quantitatively developed with detailed reference to the publication of literature, government agency reports and industry experts. References showcase the diverse business profiles, ways, and channels of use, as well as the level and tools of measurement to be included in the survey questions. The literature also emphasizes that the most commonly used form of measurement is the quantitative measures found on Facebook, Instagram, Twitter, and other social media channels due to its facilitation features on the application panel interface. Thus, the information to be asked has been broken into two parts: 1) the firm's background information; 2) the measurement practices since social media began to be embraced. The procedures were adopted from [34] and [35] considering research backgrounds, consistency of questionnaires, formatting and data analysis, and establishing validity and reliability during the development phase. Four academicians in the sphere of social media, business, and marketing have examined the studied variables and found the suitability of items and scales in addressing the research questions. In an aim for face validity, two linguists, one English lecturer and the other Malay, were appointed to validate the questionnaire items to be accurate and orderly in terms of grammar, notation and use of statements. Moreover, four industry spokespeople have also been invited to comment on the outlined questions. The combination of academic and practitioners' side for validity processes have helped to revise the obscure questions as well as reorganized the complicated matters and the entire questionnaire format.

In order to enhance the quality of the questionnaire, the complete set of questions has later administered to 41 SMEs in terms of obtaining estimable feedback for content review. The analysis from the pilot study conducted has provided the extent for the questionnaire improvisation. For the closing step on data pre-collection stage, the second phase of content validity is made with an academic expert to achieve the final decision of the suitability and accuracy of the question. This survey is conducted in the form of cross-sectional horizons within five months, from April to October 2018. The dissemination has done on a consecutive basis via 1) email submission to SMEs whose profile drawn from the SME Corporation Malaysia database, 2) face to face request forms to SMEs in selected metropolitan areas in six states studied. The questionnaires were followed up using calls, social media and messaging applications to obtain SME feedback. 125 SME has completed a set of questionnaires to enable a descriptive analysis solution. The complete picture of the findings has been determined using Google Spreadsheets to show demographics of participants, the channels used, app adoption years, level of measurement initiatives, tools and metrics as well to evaluate customer engagement, statistically. The explicit analysis used was frequency test due to targeting for the examination of measurement forces among SMEs. Detailed analysis outcome will present in the next session.

### IV. FINDINGS

### A. SME Profile

Analysis of the 125 questionnaire forms of SMEs has provided good information for the knowledge of the study domain. On average, the distribution of participant groups in each item surveyed is consistent (or somewhat proportionate) to the demographics of Malaysian SME issued in SME Annual Report 2018/19. Micro enterprises and businesses from the services sector, as expected, formed the largest composition of SME participants in this study. Compared to small and medium-sized, micro-groups of firms are at the forefront as they are easier to set up at low cost, and some basic needs. The most notable involvement of the services sector in this study indicates that this sector is contributing significantly to the national economy, in line with excerpts from [36] recently which reveal the highest percentage of this group's contribution (55%) of GDP.

The study has succeeded in obtaining participants representing various business ages, where businesses conducted between 2 and 6 years are the highest (33.60%). Firms over the 10-year period are also involved, showing 26.40%. Table I details the distribution of 125 SMEs according to size, sector and year of establishment.

TABLEI

I ABLE I Demographic Of 125 Participants			
Size	Frequency	Percent	
Micro enterprise	65	52.00	
Small enterprise	42	33.60	
Medium enterprise	18	14.40	
Total	125	100.00	
Sector	Frequency	Percent	
Services	91	72.80	
Manufacturing	29	23.20	
Construction	5	4.00	
Total	125	100.00	
Years of business establishment	Frequency	Percent	
< 2 years	22	17.60	
2 - 6 years	42	33.60	
6 - 10 years	28	22.40	
> 10 years	33	26.40	
Total	125	100.00	

 Total
 125
 100.00

 Total
 125
 100.00

 The most permanent use of channels among firms is Facebook (55.19%). This finding is in line with the statistics shown in the publication whether in developed or in emerging markets like Malaysia (refer [21]). The use of Instagram has grown in terms of its popularity in a very short time by becoming the second most important channel for marketing (24.03%). The outstanding percentages use in Facebook and Instagram by participants are united with the statistics figured by [17], having mentioned that most SMEs (85.40%) were marketing products and services online through platforms such as Facebook and Instagram. The frequency of Twitter, however, is unlike in developed countries where almost every report follows closely behind Facebook. From the participants' responses, information showed Google Plus was somewhat in place with 9.09% while Twitter was only 0.65% of frequency

frequency of use of social media can be seen through Table II. While many of the participants are from SMEs who have long been in the industry, apparently their marketing approaches are merely a transformation from conventional to the online platforms. The arrival of social media among Malaysian small traders is relatively new and acceptable. Furthermore, most former businesses take a delayed time before making the decision to use social media, reflecting cost, technical, and other rational constraints. The SME Annual Report 2016/2017 accompanies this finding that the use of social media for the marketing of firms' products and services in the first quarter of 2014 was only 12.10%, indicating that many previous entrepreneurs did not venture into the platform at that time. Table II illustrates the above statement by declaring that more than three-quarters of them (81.60%) have not yet achieved the use of this application in more than six years, which is contrary to the year of establishment of SMEs in Table 1 display over the same period.

rates. Other channels are less noticeable and details about the

TABLE II Statistics On Social Media Adoption

Popular channel	Most frequent used	Percent
Facebook	85	55.19
Instagram	37	24.03
Twitter	1	0.65
Google Plus	14	9.09
LinkedIn	3	1.95
Reddit	1	0.65
Pinterest	2	1.30
Meetup	5	3.25
Others	6	3.90
Total	125	100.00
Adoption years	Frequency	Percent
< 2 years	45	36.00
2 - 6 years	57	45.60
6 - 10 years	10	8.00
> 10 years	13	10.40
Total	125	100.00

### B. Statistics on Measuring Customer Engagement

The findings in Table III demonstrated a large number of Malaysian SMEs (33.60%) are leaving behind the measurement of customer engagement activities. A total of 14.40% of them expressed their inability to implement it and hoped it would be realized in the future based on the importance of this practice for the benefit of organizational performance. This figure was not a shock; even social media is observed as a popular computer-mediated marketing tool because several scholars have resonated with the same issue regarding the lack of measurement in firms [4], [37], [38]. The reasons are varying, some based on strategic concerns in the use of social media in national [39] and global [14] agendas reviewed in the literature, industry reports, and in mainstream media. When this happens, it escalates into more prominent problems, especially among small businesses that are often associated with insufficient facilities and technical aspects. Other reasons may originate from a lack of knowledge of performing measurement activities due to lack of guidance. It is also conceivable to think of inadequate time because, as far as this study knows, in general, SMEs rarely have a specific social media unit, so marketers or advertisers on social media channels are usually owners and managers who are obviously overwhelmed with the work of making decisions.

Description of the results of the study was continued to 79 other firms representing 63.20% of the total participants. From the point of view of measuring customer engagement, 89.90% of SMEs place their choices on the top two scales, citing this element as crucial to their firm. Participants disassociated from them (36.80%) do not mean to underestimate the importance of customer service in the cybersphere, but most have various more basic goals to achieve, primarily for micro-enterprises or new business age beneath two years. For the present, 62.10% think they have been successful in assessing customers based on the metrics that have been used so far. As there are many indicators for evaluating marketing efforts, SMEs ordinarily take the easy and low-cost steps by using the items available in the media panel. In some participants, this trial produced negative perceptions expressing uncertainty about the outcome of the measurement effort (35.40%).

TABLE III
SUCCESS RATE IN MEASURING CUSTOMER ENGAGEMENT

Implementation of measurement	Frequency	Percent
Yes	79	63.20
No	15	33.60
Not now, but yes for the future	31	14.40
Total	125	100.00
The importance of measurement	Frequency	Percent
Very important	50	63.30
Important	21	26.60
Average	5	6.30
Less important	3	3.80
Not important	0	0.00
Total	79	100.00
Degree of success	Frequency	Percent
Very successful	10	12.70
Successful	39	49.40
Uncertain	28	35.40
Seldom	1	1.30
Never	1	1.30
Total	79	100.00

SMEs often adopt existing facilities in the panel of social media channels. To evaluate customer engagement, the tools that are known to be useful to their assessment efforts on Facebook are Facebook Insights, on Instagram is Instagram Insights, and so on. These Insight tools empower marketers, executives, or management levels to analyze data stored before making energetic decisions to attain specific objectives. The data usually sourced from the actions performed by audiences and customers at the social media dashboards, examples the clicking of Like and Share. Table IV presents the number of uses of these tools based on SME channels utilizing marketing operations. There are SMEs that apply more than one tool if their marketers use multiple channels to deal with customer interactions. This approach is considered more effective by the participants as each of the different channels will have a separate segmentation market, so this practice requires different strategies driven by distinct tools.

The five most important metrics for SMEs to assess their customer engagement according to priority (rated by percentage) are Like, Share, Comment, Photo and Reach. Quantitative-type metrics like these are popular for SME participants for ease of use. Except for Photo-click buttons, the results of the other four indicators are consistent with previous research works (refer [40], [41]). Like, Share, Comment and Reach are common available activities made by customers and prospects on posts in the brand's page administered by firms. By engaging in Like action, they have shown an interest in the brand and can serve as an agent of introducing the brand to their network contacts. Social media can be a great platform for loyal and satisfied customers to disseminate brand information and knowledge. At this point, they help to create brand awareness by using the Share and Comment buttons to spot communities in the channel network. The comments discussed in this case refer to positive words impacting a good side about the brand and being passed on from customers to others. All five metrics, in general, are theoretically validated as good measures of customer engagement on social media channels.

TABLE IV	r	
LS AND METRICS FOR MEASURIN	G CUSTOMER ENGAGE	MENT
omer engagement	Frequency	Р
tics	25	

Tools for customer engagement	Frequency	Percent
Google Analytics	25	17.20
Buffer	2	33.60
Followerwonk	0	14.40
Klout	0	63.30
Quintly	0	26.60
Facebook Insights	71	49.00
Instagram Insights	32	22.10
Twitter Analytics	5	3.40
Pinterest Analytics	1	0.70
LinkedIn Analytics for Businesses	2	1.40
Google+ Influence	5	3.40
SumAll	0	0.00
SocialBakers	0	0.00
Rival IQ	0	0.00
Social Report	2	1.40
Other	0	0.00
Total	145	100.00
Metrics for customer engagement	Frequency	Percent
Reach	30	9.20
Retweet	3	0.90
Comment	53	16.20
Share	54	16.50
Tweet	4	1.20
Photo	29	8.90
Post	28	8.60
Like	56	17.10
Potential	2	0.60
Listed	3	0.90
Favorite	3	0.90
Friend	13	4.00
Impression	6	1.80
Pin	1	0.30
Click	5	1.50
Account Read	1	0.30
Mention	9	2.80
Followers	27	8.30
Total	79	100.00

The last session of this paper will elaborate on the conclusion of the discovery of this analysis decision. Besides, this section will look through the feasibility to recommend several subjects from the findings, aiming for future researchers, the authorized body, as well as to the relevant industry.

### V. CONCLUSION AND RECOMMENDATION

The last session of this paper will elaborate on the conclusion of the discovery of this analysis decision. Besides, this section will look through the feasibility to recommend several subjects from the findings, aiming for future researchers, the authorized body, as well as to the relevant industry. The essential comparative items from Table I and Table II are the two conflicting sides between the years of business establishment and the duration of social media utilisation. Since Facebook's dispersal occurred only after the last eight years in an increasingly developed country, long-standing marketers in the industry faced their approach to being transformed into webbased and social sites to gain competitive advantage. Malaysian marketers utilise other channels such as Instagram and Twitter after Facebook but at a slower pace. This scenario implies how the use is still growing among SMEs to the date.

The data analysed and presented in Table III and Table IV reflects the new SME's routine in the digital marketing domain. On the first side, this group wisely took the opportunity of social media and its popularity among consumers to enhance product marketing capabilities. On the second side, SME management paid attention to assess their online marketing activities, and the inclination to implement them is expected to increase according to current technological developments, current economic fluctuations and the significant challenges of rivals that sprout all the time. Meanwhile, on the third side, as SMEs in developing countries, the rapid proliferation of applications and social media features barriers to the mastery of marketers of new techniques introduced drastically. SME looks comfortable to stay with the old marketing techniques. Perhaps, they refuse or no longer have the opportunity to integrate it because of any change later in the future will undoubtedly involve time and cost. Indeed, SMEs take advantage of social media for their benefit, often with a minimum strategic plan.

This article would like to highlight two recommendations as followings. First, as this study is among the first in the customer engagement measurement aspect in the Malaysian context, it is valuable to support new knowledge for scholars aimed at researching a similar domain in the social media area. The future scholars should apply the findings as the basis to expand the analytical process for gauging customers in social media brand pages, such as comparing and reporting effective measurers in different tools. Scholars also able to use the knowledge to suggest the formulation for new metrics with the combination of quantitative and qualitative elements. The qualitative aspects can be found in customers' comments, for example, from where applicable text and emoticons are extracted and analysed, later integrated with quantitative metrics to shape for the final meaningful metrics.

Second, the findings can enhance the section of SME and Entrepreneurship Development Programmes in SME Annual Report released by SME Corporation Malaysia in the upcoming years. Attached in this section is a subtopic on Innovation and Technology Adoption which discusses about several programmes implemented by the Malaysian Government to reframe the technological competence among SMEs. SME Corporation Malaysia as a credible agency should append some related ideas on the basis of the findings' information into their future programme of the SME Annual Report. The council members also can add those results into the Special Highlights section in the same report.

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