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**Mobile Messenger Application: Sharing, Rating and Engagement in Global Social Commerce**

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**ABSTRACT**

This paper explores the relationship between rating, sharing and engagement within the freely available Mobile Messaging Application (MMA) through understanding their features and compatibility. We argued that MMA has the potential to substitute online marketing communication in the near future and the use of closed group chatting, sharing of information, and mobile-commerce in marketing communication has increased. Therefore, reviews on the current MMA, their abilities, compatibilities, functions and features with the marketing communication functions and features were analyzed. In particular, this study focuses on the implementation of MMA in future marketing communication and the engagement of users in sharing information, commenting on products and rating (sharing opinion) on products and services.

**Keywords**

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Mobile Messaging Application,  
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**1. INTRODUCTION**

Mobile messaging application (MMA) has become one of the alternative choice, replacing the similar service provided by short message service (SMS) (Hoffman 2013). MMA offering free messaging services such as WhatsApp, Kakao, WeChat and Viber and it is still constantly evolving, and in argument of its ability to substitute the need in supporting online advertising, or marketing communication. Meanwhile, applications such as Google AdSense, Pay-Per-Click advertisement, Promoted, Like, Repost button, Hash Tag, Pin, and Recommended functions from Facebook, Twitter, Google Plus, Instagram, Tumblr, and LinkedIn have been extensively used in marketing communication replacing the similar advertising function from television, kiosk and billboard. Regardless of the functions provided by each of these applications, the main purposes of these apps are to engage human interaction and utilizing the power of human network connection to distribute and share information.

MMA are freely available and free for download. The potential of including global users in one same platform for information distribution, or evaluation sharing is not a difficult task. Users commonly use MMA for individual chatting. However, advertisers must not ignore the capability of Group Chat, and evaluations shared in it, which eventually has high impact on maintaining customer relationship. Group Chat has now become a common method in commerce to share information, but this feature was later being questioned on its ability to replace advertising as a form of marketing communication. For instance, there is a lack of opportunity for sharing users' feedback or evaluation on the product advertised in the Group Chat. Nevertheless, the publicity of feedbacks or evaluations shared in Group Chat such as the "Rating Methods" are normally use for online advertisement to maintain customer relationship. The next section will discuss the types of rating methods used for evaluating products or services.

**2. RATING METHODS**

Rating, a common way of evaluation, has a major role in managerial decision-making and online purchasing (Li & Siena 2014). Even though (Chen et al. 2011) pointed out that comments quality and user ratings are lack of correlation, the rating method is still popularly implemented as the recommendation system. (Leino 2011) indicated that rating determines decision intention. With a statement 'based on the stars you could pick the best one faster,

or at least pass by the worst ones', he pinpointed that rating feature has speed up decision process in decision making (Leino 2007).

There are several features available to share, or to rate a product online. In a social media platform, users can show their interest on a wall-post or photo by pressing the 'like' button (Sparling 2011). Unary rating in Facebook has been widely used by users to rate their "like" value on a posting of their network members. Discussion were done on the usage of rating method, such as the 'like' button in Facebook by (Ringelhan et al. 2015) and the discovery of what Facebook 'like' reveals by (Isenberg et al. 2015); understanding what stakeholders 'like' on Facebook by (Saxton & Waters 2014); and what makes users click the 'like' button by (Lee et al. 2015). These research focus on understanding the unary rating used in Facebook.

On the other hand, the binary scale is also used widely in many social-news aggregators like Digg.com and YouTube. It is a rating method where users give a positive or negative rating to its contents. (Sparling 2011) studied 348 users, with a generated of 12,847 ratings on movies and products review. He identified the number of rating methods used in those reviews and among all, 2010 users have used the method of unary ratings, 4163 users used binary ratings, 3978 users used the star rating, and lastly 4,426 users used the slider rating (Sparling 2011). The results showed the preference intention of using slider ratings. Several websites have also used different types of rating methods and Table 1 shows the ratings used by these websites. (Bargagliotti & Li 2013) studied how binary rating and scale metrics represent raters' opinion. The results showed that decisions can be led by different systems.

Table 1: Ratings on Websites

Rating methods	Example of Websites
Unary	Facebook ( <a href="http://www.facebook.com">www.facebook.com</a> )
Binary	You tube ( <a href="http://www.youtube.com">http://www.youtube.com</a> )
Star	IMDb ( <a href="http://www.imdb.com">http://www.imdb.com</a> )
Slider	Hr-survey( <a href="http://www.hr-survey.com/PfSlider.htm">http://www.hr-survey.com/PfSlider.htm</a> )

Michael Zhang (Zhang 2012) stated that, at one time of history, YouTube has used the 5-star rating system for its videos. However the function was later replaced with Binary Rating ("thumbs up & thumbs down"). YouTube makes this move due to the assumption of its value similarity in 5-star. Turning to applied social psychology, (Hui 2001) revealed the social desirability response (SDR) rating has its own effect in double-rating approach. (Funke et al. 2011) further replicated (Hui 2001)'s study and their results showed that participants in the single-rating method condition had higher social desirability scores than those in the double rating method. These observations was found in applied social psychology, nevertheless, there is lack of such observation in social computing.

Star rating is a rating method that uses the amount of star to evaluate a certain product or status. The Amazon online store, Film affinity, Internet Movies Database (IMDb) and others have used the "5 stars" rating method that allows users to indicate which movies are of their interest. The meaning of "5 stars" rating that the users give for each content has a value and is defined by Nuñez Valdez (Nuñez Valdez et al. 2011b) . However, (Nuñez Valdez et al. 2011a) also pinpointed that most people who like a content would assign the maximum score and if they do not like it, they will assign the lowest score. This illustrates that there is no point to use star rating, which at the end, it is equivalent to Binary Scale.

Slider rating is a rating method that gives researchers the chance to produce a question and answer style that incorporates a greater breadth of answers as well as enabling animation and interactivity. Respondents can simply slide to whatever rating they want (Anon n.d.). Funke et.al. (Funke et al. 2011) compared the significance and response time between slider scales and radio buttons. He discovered that slider scales lead to statistically significant higher break-off rates and substantially higher response times. Presuming the slider scale is to be implemented on a MMA, and data is collected based on rating aggregated from a group chat, this scale can be utilized as a feature for sharing a product to a group with specific interests. By just adding the telephone number, without downloading any other apps, the rating can be done in a very significant way in MMA.

Lastly, Devavrat Shah, a professor of Information and Decision Systems at MIT said that the flaw of the 5-star rating is too ambiguous and subjective (Zhang 2012). Human's rating tends to fluctuate based on their mood. Therefore, Star Rating and Slider Rating will not be the best choice (Zhang 2012). Thus, with much evidence which

supported that Star Rating and Slider Rating will not be the best choice; the Binary Rating (“like & dislike” / “thumbs up & thumbs down”) are preferred to be included in the MMA.

### 3. MEDIA SHARING AND FORWARDING FEATURES

A group of similar special interest can discuss a similar product in a group chat. When all the members of similar interest come together to purchase a similar items, the opinion and rating become part of reference. In terms of referencing features available in MMA, the “forwarding” feature has a vital role. In this cross-cultural environment, language used to refer to a special product in group chat, making the communication more challenging. A platform that allows photo sharing and forwarding such as MMA, has thus become another supporting features. This has increase the potential of engaging MMA users.

Media sharing is a method that allows users to forward and upload photos, videos and audios to a website and MMA that can be accessed anytime anywhere as long as there is an Internet connection. Users can share the media to the public or to a selected group of friends. All features of Media Sharing and Forwarding are also available in MMA, such as Viber, WhatsApp, Line, SnapChat, Keek, Voxer and WeChat. These features are available, no matter which platform the users are using. Yet, the rating function discussed above need to be included in MMA if it is to be utilized as one of the marketing communication and recommendation system.

Furthermore, in consideration of the privacy and information loading issues, Group chat has again make itself a better platform. The privacy issue can be solved when there is an experience group of people that shares similar interest leaves the group without leaving any tracing effect; at the end, it contributes to solve the problem of Social Media information overloading (Feng et al. 2015).

### 4. MOBILE APPLICATIONS, FEATURES, FUNCTIONS AND COMPATIBILITY

In the question of the ability of MMA in substituting marketing communication channel, the compatibility of these mobile phones has also been reviewed. Walker (Walker 2014) listed MMA such as WhatsApp, Viber, Facebook Messenger, Line, Voxer, Heytell, Talktone, Keek and Snapchat as the most commonly used messaging applications. Most of the listed applications are compatible with iOS and Android. Table 2 lists the features of MMA, its additional features and compatibility.



Table 2: Mobile Apps, Features and Compatibility

Function & App Name	Compatibility	Features	Additional Features
Whatsapp	iOS, Android, Windows phone, BlackBerry, Symbian,S40	Text, emoticon, photo, video, audio, location, contact, Walkie Talkie	-
Line		Text, emoticon, photo, video, audio, location, contact, Walkie Talkie, Line Camera, Stickers	Social Page, exclusive partners, celebrities & games
Viber	iOS, Android, Windows, BlackBerry, PC, MacOS	Text, Emoticons, Photo, Video, location, Doodle, Voice call	-
Voxer	iOS , Android & Mac OS	Text, photo, location, Walkie-Talkie	Available in desktop
Keek	iOS, Andriod , Windows Phone & blackberry	Video & comment	Instant sharing video to twitter, Facebook and more
Snapchat	iOS & Andriod	Text, photo, video, emoticon	Editable and caption able video Video/ photo will not be stored
Facebook Messenger	iOS ,Android, BlackBerry, Windows & web browser	Text, Emoticon, photo, video, audio, location, contact, Walkie Talkie, Stickers	Link to Facebook
Heytell	iOS, Android, Blackberry &Windows Phone	Text, location, Walkie-Talkie	Push-to-talk

Textnow	iOS, Android	Text, emoticon, photo, voice call & voice mail	Addable of signature to each text
Wechat	iOS, Android, BlackBerry & Windows Phone	Text, emoticon, photo, voice, video call, voice call, location	Sight, Name Card, Recall

A total of ten MMA are compared in Table 2. All the applications are compatible with iOS and Android. Only Voxer and Text Now are not compatible on Blackberry. Moving towards the functions of MMA. Table 3 summarizes the ratings and comments function of the applications listed in Table 2.

Table 3 Functions available from Top 10 Mobile Messaging Application

App Name & Function Availability	Like Icon 	Dislike Icon 	Status	Group Sharing	Medi Sharing
Whatsapp	X	X	✓	✓	✓
Line	✓	X	✓	✓	✓
Viber	X	X	X	✓	✓
Voxer	X	X	X	X	X
Keek	✓	X	✓	✓	✓
Snapchat	X	X	X	✓	✓
Facebook Messenger	✓	X	✓	✓	✓
Heytell	X	X	X	✓	✓
Textnow	X	X	X	✓	✓
Wechat	X	X	X	✓	✓

There are only three MMAs (e.g: Line, Facebook Messenger & Keek) that allow status and media rating (eg. Unary Rating). Although other MMAs provide group sharing, media sharing and status posting, there is no way for other users to rate or vote for a photo or status posted by someone else. If an individual requires any opinion from others about their photo, they can only be judged based on the replies they received.

Now, another question to be asked is as whether or not the current features and functions on the MMA are suitable for engaging in global social commerce? In order to further understand the market engagement, a pilot study was carried out with 100 MMA users. The findings from this pilot study were discussed in the next section.

## 5. Mobile Application Engagement

One hundred sets of questionnaire were collected to understand the MMA engagement among the users. Table 4 shows how the users discovered a new MMA in the market.

Table 4: From where the users discover a new MMA (ranging from 1 strongly agree to 5 strongly disagree)

	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
Friend	27%	33%	19%	12%	9%
Advertisement	2%	22%	25%	24%	27%
Web Blogs	2%	7%	14%	35%	42%
Social Media	18%	34%	25%	10%	13%
Other Source	5%	9%	18%	41%	27%

### 5.1 From where users discover/get-to-know a new MMA?

Table 4 shows 60% of users agreed that they get-to-know about a new MMA from friends, 52% of them found it through social media platform, while 47% of them were informed through advertisements. Blog was asked separately from the social media group as it was assumed to be a type of website for introducing and reviewing

new applications. Only 9% of users agreed that they get-to-know about a new MMA from blog/website. Other sources seems to have no effect on the introduction of a new application. From this finding, it can be suggested that social media seems to be an ideal platform used to market a new application.

Table 5: From where the users download the MMA discovered in year 2014

	Percentage
Playstore	61%
AppStore	53%
Other Source	2%

Table 5 shows that 61% of the users downloaded the applications from Play Store whereas 53% of them download it from AppStore. This implies that Android mobile users are larger than iOS users in this group. Not many of them downloaded from other sources. The most frequent used MMA is WhatsApp, which scored the highest among the respondents (74%), followed by Facebook Messenger (21%) and Line (5%). The respondents were given nine types of MMA such as Viber, Keek, Voxer, Snapchat, Textnow and Heytell, but majority of them chose WhatsApp and Line as shown in Table 6.

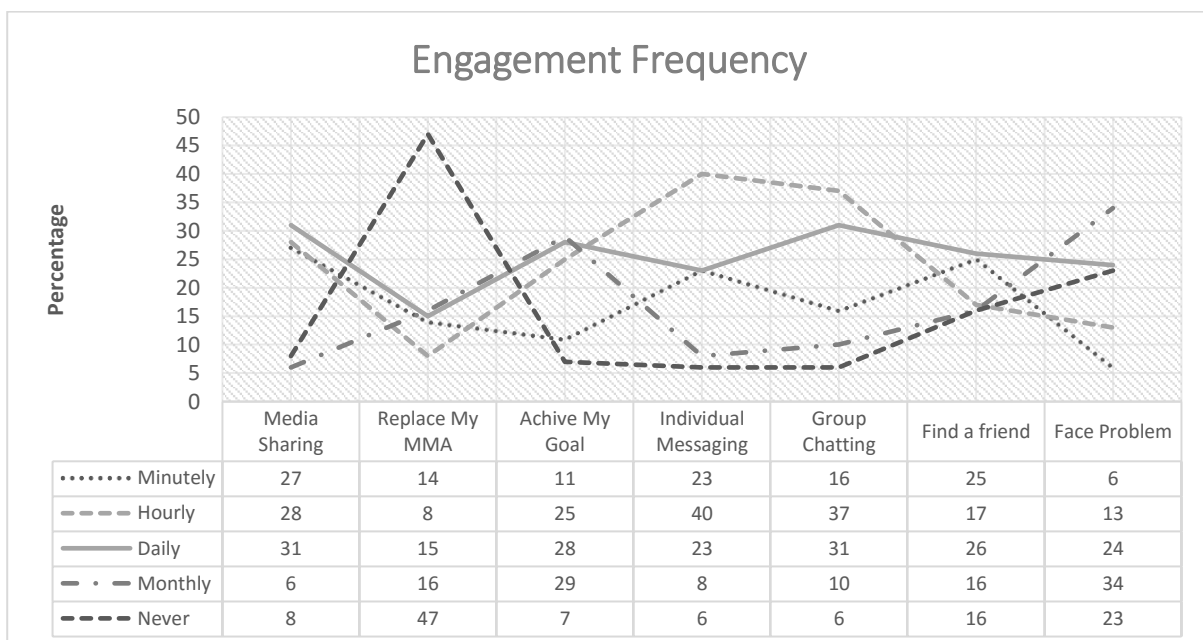
Table 6: Most Frequently used Mobile Messaging Application among all selection in year 2014

	Percentage
WhatsApp	74%
Facebook Messenger	21%
Line	5%
Others	0%

### 5.2 Mobile Messaging Application Engagement (frequently used) and Replacement

Figure 1 shows the frequency of usage and replacement of MMA. It was obvious that WhatsApp has the highest frequency used (hourly rated) and most of them “never” replace their current MMA. Data shows that media sharing was used daily such as sharing photos, music or video on MMA. 47% of the respondents never replaced their MMA in year 2014. They stated that MMA helps them to achieve their goal, in terms of getting to contact their friends and communicate with new friends. Majority of users used MMA to chat with a friend as frequent as hourly. Some of them used it to find a new friend to chat, almost daily. Yet, in regard to the problem faced when using MMA, 34% of them faced the problem on a monthly bassc, while 23% of them never faced any problem in using MMA. Overall, the results have high indications that MMA is a good platform for engaging in communication in our daily lives. However, does this indicates that MMA is a good platform to engage with friends? Or has it just become an “addicted” habit?

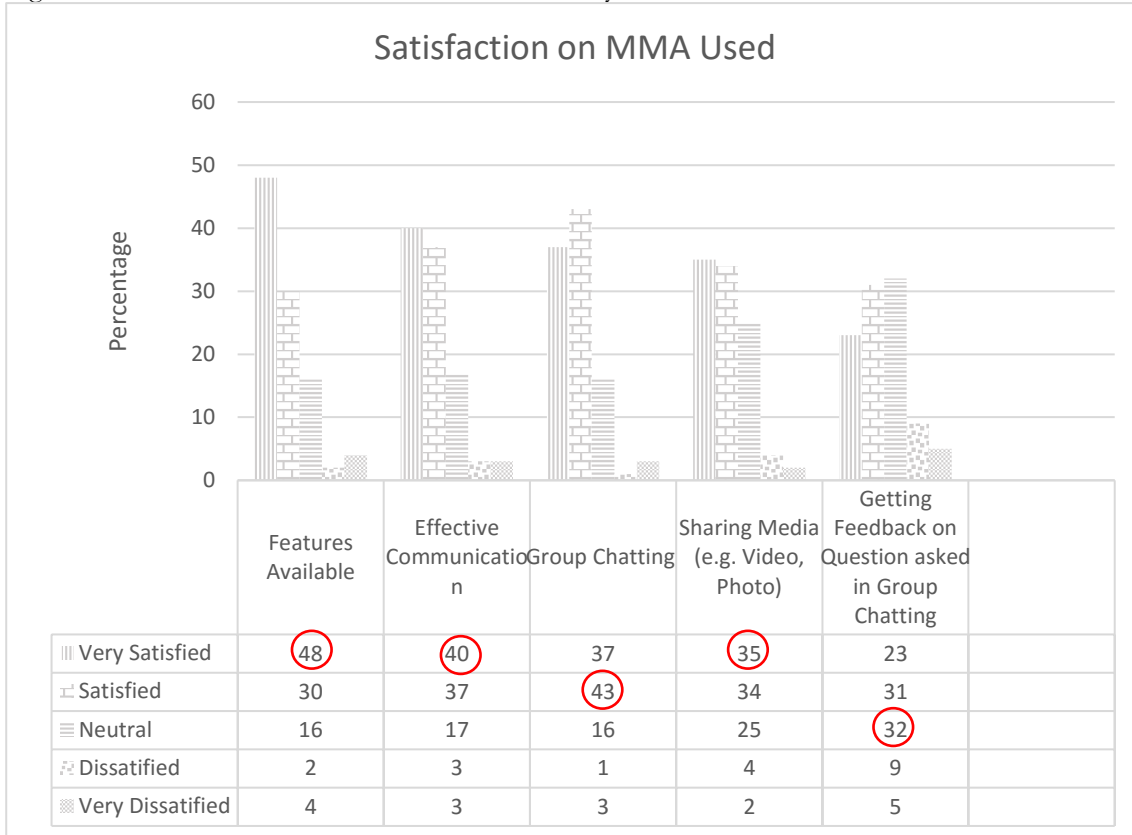
Figure 1: Engagement Frequency and Activities



5.3 User’s Experience with the features/functions of MMA

Figure 2 presents the users’ satisfaction on the feature/functions of MMA. Majority of the respondents rated ‘highly satisfy’ and ‘very satisfy’ for all the features/functions available on MMA. Therefore, the current MMA are able to satisfy users’ requirement. 43% of the respondents were satisfied with the Group Chatting, and 80% of the respondents were satisfied and very satisfied. In terms of media sharing, 69% of respondents rated very satisfied and satisfied with the function, while 54% of them could get their question answered from Group Chatting.

Figure 2: Users’ Satisfaction Vs. MMA’s Functionality



6. CONCLUSION AND FUTURE WORKS

In this study, we discussed the potential of using different types of rating methods, how media sharing and the compatibility of phones for MMA are suitable for marketing communication. Drawing from the reviews of rating methods, we understood that rating method has become the managerial decision making tools, allowing for products or services referencing. The current free messaging services provided by smart phone applications obviously do not provide a feature for rating. It is suggested that future MMA to include “rating” features. Furthermore, the more functions and features available in MMA, the lesser the text communication, hence it is easier for users to share information, especially it covered global target where the language used are different. Our comparison of ten different types of MMA features allow us to examine these platforms, to be utilized or perform greater opportunity for global social commerce, result show high possibility of engagement with different mobile platforms. The engagement of a new MMA is influenced by how the users discover or get-to-know it, thus, apps store or play store placed a significant location for introducing new MMA. Lastly, the high number of frequently use of MMA from our survey outcome has indicate us the potential of engaging MMA in future marketing communication.

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