

The Effect of MWOM Through the WhatsApp Platform Toward Customers Purchase Intention

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Received: 15 June 2023 | Accepted: 10 August 2023 | Published: 1 September 2023

DOI: <https://doi.org/10.55057/ijbtm.2023.5.3.21>

Abstract: *The rapid growth of technology has transformed conventional word of mouth (WOM) into Electronic Word of Mouth (eWOM). E-WOM on mobile devices is known as Electronic Word of Mouth Mobile Messaging Application (MWOM), such as WhatsApp, Facebook Messenger, Line, and WeChat. Many researchers assess the eWOM, but there's very little research about the MWOM. In fact, it's a big opportunity to do MWOM marketing strategies, especially on WhatsApp, which is the most popular media chat application in Indonesia. However, the SYFO company has not yet been effective with its MWOM WhatsApp marketing. This study aims to study the case of the SYFO company by identifying the MWOM factor through WhatsApp toward customer purchase intention and giving recommendations to optimize the MWOM. The researchers assessed nine variables, and a total of 119 respondents were chosen. With quantitative methods, the data gained from a survey through a questionnaire. The collected data will then be analyzed using the PLS-SEM feature in SmartPLS 4.0. The results show that information usefulness can have an effect on information adoption. Then, information adoption can have an effect on purchase intention (mobile purchase intention, offline purchase intention, and social purchase intention). Unexpectedly, attitude toward information cannot have an effect on offline purchase intention. The SYFO company or another company with a similar background may use the results of the analysis of this research to gain insight and implement the findings within the company.*

Keywords: MWOM, WhatsApp, purchase intention, marketing strategies

1. Introduction

One of our most groundbreaking and fast growing technologies has been the internet. Indonesia's internet penetration rate reaches 77.02% of the country's total population, with WhatsApp becoming the most popular media chat application (APJII, 2022). E-WOM is a hot topic that attracts the interest of many researchers, especially in social media, where it has been found that eWOM plays an important role in customer's purchase intention and has transformed the traditional WOM (Elhadidy, 2017). E-WOM has long been recognized as a powerful marketing tool (ZHANG et al., 2010). E-WOM in mobile devices called Mouth Mobile Messaging Application (MWOM). Consumer interactions about brands using their mobile devices are known as MWOM (Erkan et al., 2019). According to Erkan et al. (2019), MWOM has gained a revolutionary new perspective with the advent of messaging applications (WhatsApp, Facebook Messenger, Line, WeChat, etc). The diversity of WOM is illustrated in Figure 1.

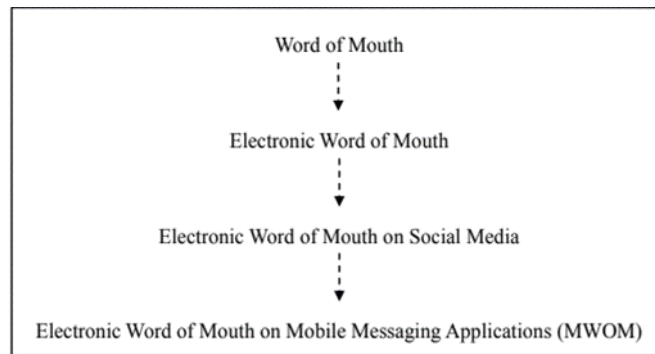


Figure 1: The Diversification of Word of Mouth Communication (Erkan, 2014)

SYFO is one of the companies that entered the food and beverage industry. SYFO manufactures ready-to-eat products that enable Indonesian housewives to cook faster, more conveniently and with complete equipment. SYFO applied MWOM marketing strategies but failed to optimize and had a low conversion-to-sales ratio. Considering the results of Roy et al. (2019), in the context of eWOM, researchers should conduct an analysis before launching an MWOM campaign on WhatsApp for SYFO company. It is important to understand the factors that influence consumer perception and implement eWOM in a mobile device, service-oriented context (Pentina et al., 2017). Therefore, researchers would like to know which factors of MWOM influence customers' purchase intentions, especially on the WhatsApp platform. Recommendations for executing the plan can be derived from these factors.

2. Literature Review

2.1 Mobile Word of Mouth in Messaging Applications

MWOM is a marketing strategy that employs digital media such as short video clips and messages transmitted via mobile phones to convey information about products, services, and ideas to potential buyers (Wiedemann, 2007). Young people have a favourable opinion of MWOM and think that mobile messages are fun, useful, relevant, and simple to distribute when the message offers personal benefit, according to Yang and Zhou's (2011) research. MWOM is extremely important in messaging applications and can significantly influence consumer purchase intentions (Erkan et al., 2019). Thus, this study focused on the potential impact of MWOM in messaging apps on mobile purchasing intention, specifically the WhatsApp platform.

2.2 Information Acceptance Model (IACM)

The fundamental theory for the conceptual framework of MWOM comes from the Information Acceptance Model or IACM. According to Erkan et al. (2019), the information acceptance model (IACM) precisely explains how people interpret and accept the content they see on social media. By including consumer behaviour and discussing how this process affects behavioural intention, the IACM strengthens the concept of information adoption (Erkan and Evans, 2016). The IACM indicates that the factors affecting purchase intention include information quality, information credibility, needs of information, attitude towards information, information usefulness, and information adoption (Erkan and Evans, 2016). Finally, the IACM demonstrates that in order to fully understand the impact of online information, the characteristics of the information and the consumer behaviour towards that information must be considered together (Erkan et al., 2019). Accordingly, this study uses IACM to explore the impact of MWOM in mobile messaging application on customer's mobile purchase intention, considering MWOM as a type of WOM with similar characteristics, also as the importance of explaining consumer behaviour towards information.

2.3 Conceptual Framework of MWOM

Erkan et al. (2019) used a conceptual framework model based on the Information Acceptance Model (IACM) to extract all variables relevant to the MWOM with some modifications related to both online and offline purchase intention. In order to establish a direct impact on consumer information adoption, the IACM is first expanded by moving customer attitudes toward information within the model. After being evaluated, the results confirm and validate the proposed model. The MWOM of messaging applications has been shown to positively influence mobile purchase intention, offline purchase intention, and social commerce intention. Using the same conceptual framework developed by Erkan et al. (2019), researchers will evaluate the same variables and hypotheses but different samples to answer the research questions and achieve the research objectives of this study in the corporate context of SYFO. This study proposes and experimentally examines a theoretical model created by Erkan et al. (2019) based on IACM (Erkan and Evans, 2016) in order to determine the causes and impacts of MWOM information in messaging applications that influence customers' mobile purchase intentions. A conceptual framework is shown in Figure 2.

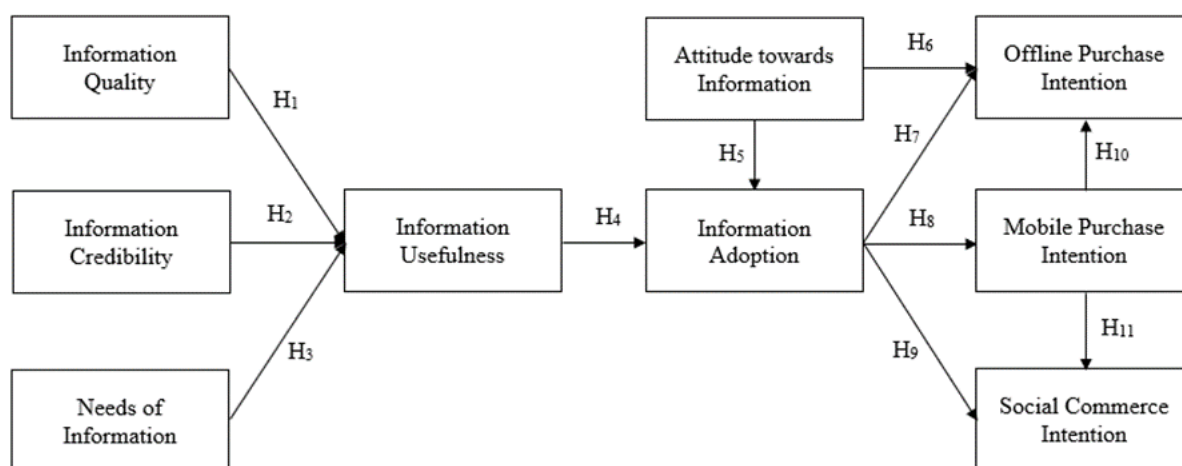


Figure 2: Conceptual Framework (Erkan et al., 2019)

Here's the detailed hypothesis for this study.

H1: Quality of MWOM information will positively affect usefulness of MWOM information

H2: Credibility of MWOM information will positively affect usefulness of MWOM information.

H3: Needs of MWOM information will positively affect the usefulness of MWOM information.

H4: Usefulness of MWOM information will positively affect the adoption of MWOM information.

H5: Attitude towards MWOM information will positively affect the adoption of MWOM information.

H6: Attitude towards MWOM information will positively affect the purchase intention.

H7: Adoption of MWOM information will positively affect offline purchase intention.

H8: Adoption of MWOM information will positively affect mobile purchase intention.

H9: Adoption of MWOM information will positively affect social commerce intention.

H10: Mobile purchase intention will positively affect offline purchase intention.

H11: Mobile purchase intention will positively affect social commerce intention.

3. Research Methodology

3.1 Research Approach

In order to obtain primary data for this study, quantitative methodologies are used. A problem statement, the creation of a hypothesis or research question, the assessment of pertinent literature, and the quantitative analysis of data are all steps in the quantitative research process (Williams, 2007). This study is quantitative because it is particularly well adapted to demonstrating cause-and-effect relationships, testing hypotheses, and analyzing the opinions, attitudes, and behaviours of a large community (Verhoef et al., 1997).

3.2 Data Collection Method

An in-order survey was used in this study by the researchers to collect data from participants and pose questions. Data is gathered through a survey that distributes online questionnaires. With well-formatted, formal, and structured questions, this survey will be made online utilizing the google forms platform. The respondents were chosen from Bandung-area housewives who frequently prepare meals and are inclined to do it in a straightforward manner, which is in line with SYFO's target market. The Bandung Area has 966,456 housewives (*Badan Pusat Statistik*, 2023). A sample size of 100-150 participants is recommended for this study because it uses the PLS-SEM technique (Ding et al., 1995). The researcher employed one of the non-probability approaches known as "purposeful sampling".

4. Data Analysis and Discussion

The researcher did a survey on 119 respondents in Bandung with 60% being Gen Y/Millennials. A total of 67% have already used WhatsApp for more than 6 years. Here's findings from the survey. The analysis was tested using SmartPLS 4.

4.1 Measurement Model Evaluation

PLS-SEM evaluates the measure's validity and reliability first. Both convergent and discriminant validity are tested in the validity test. Convergent validity, as determined by the composite reliability (CR) and the average variance extracted (AVE), displays whether the items are related to one another and whether they measure the same variable. The validity of convergence is obtained. Figure 3 shows that the CR for each variable is greater than 0.70 (between 0.876 and 0.943) and the AVE is greater than 0.50 (between 0.620 and 0.893) for each variable.

Variables	AVE	CR	Cronbach's Alpha
ATI	0.743	0,896	0,826
IA	0.858	0,924	0,835
IC	0.772	0,931	0,902
IQ	0.761	0,905	0,842
IU	0.876	0,934	0,858
MPI	0.729	0,890	0,826
NOI	0.893	0,943	0,880
PI	0.639	0,876	0,812
SCI	0.620	0,907	0,876

Figure 3: CR, AVE, and Cronbach's Alpha Values

In addition, the discriminants' validity was evaluated using the Fornell and Larcker criterion. To attain sufficient discriminant validity, each square root of AVE must be larger than the other correlation coefficients (Fornell and Larcker, 1981). The validity of the discriminant is obtained, as can be seen in figure 4.

	ATI	IA	IC	IQ	IU	MPI	NOI	PI	SCI
ATI	0,862								
IA	0,696	0,926							
IC	0,524	0,572	0,879						
IQ	0,450	0,477	0,712	0,872					
IU	0,571	0,608	0,698	0,662	0,936				
MPI	0,246	0,245	0,089	0,203	0,196	0,854			
NOI	0,412	0,430	0,313	0,300	0,414	0,202	0,945		
PI	0,571	0,684	0,498	0,520	0,475	0,425	0,437	0,800	
SCI	0,545	0,684	0,485	0,478	0,531	0,462	0,528	0,697	0,787

Figure 4: Discriminant Validity Result Using Fornell-Larcker Criterion

A Cronbach's alpha score above 0.7 indicates that the questions are reliable (Field, 2009). The figure 3 also shows that cronbach's alpha for each variable is greater than 0.70 (0.812 to 0.902).

4.2 Structural Model Evaluation

Collinearity must be investigated before examining structural relationships (Hair et al., 2019). The collinearity test is calculated using the Variance Inflation Factor (VIF), according to Wong (2013). The VIF scores for all indicators are shown in Figure 5 and it is shown less than 5. As a result, all of the indicators meet the requirements and are not multicollinear.

Variables	VIF	Variables	VIF	Variables	VIF
ATI1	1.768	IQ1	2.476	PI1	2.069
ATI2	2.921	IQ2	2.671	PI2	1.708
ATI3	2.088	IQ3	1.624	PI3	1.819
IA1	2.056	IU1	2.297	PI4	1.846
IA2	2.056	IU2	2.297	SCI1	2.195
IC1	2.663	MPI1	2.225	SCI2	3.392
IC2	2.924	MPI2	2.084	SCI3	2.323
IC3	2.554	MPI3	1.623	SCI4	2.151
IC4	2.780	NOI1	2.617	SCI5	2.030
		NOI2	2.617	SCI6	1.761

Figure 5: Collinearity Result

Based on Wong (2013), R^2 is a 0–1 coefficient that measures the value used to check the conceptual framework's accuracy. Higher R^2 values, ranging from 0 to 1, indicate greater explanatory power. So, this study is accurate and has explanatory power from 0,052 until 0.564.

The F^2 effect size is a metric used to assess the strength of the association between latent variables. Meanwhile the Q^2 is used to determine the success predictions' extent (Wong, 2013). This study has predictive relevance because all of the Q values are larger than 0.

Variables	R-square	Q-square
IA	0,543	0.532
IU	0,564	0.544
MPI	0,052	0.040
PI	0,538	0.368
SCI	0,553	0.346

Figure 6: R^2 and Q^2 Result

Variables	F-square
ATI -> IA	0,402
ATI -> PI	0,024
IA -> MPI	0,064
IA -> PI	0,304
IA -> SCI	0,790

Figure 7: F^2 Result

4.3 Hypothesis Testing and Discussions

The hypothesis would be accepted if t-value greater than 1.96 and p-value less than 0.05. Ten hypothesised relationships between variables were found to be statistically significant and one hypothesis was not. Specifically, H6 ($p=0.156 > 0.05$) predicting a positive effect of attitude toward information on purchase intention was not a significant effect and was not supported. Besides, H1, H2, and H3 were supported based on the finding that information quality, information credibility, and need of information positively influence information usefulness. In addition, H4 and H5 are also supported, information usefulness and attitude towards information have been shown to positively influence information adoption. Furthermore, a positive influence of information adoption and mobile purchase intention on purchase intention were proven which means H7 and H10 were supported. H8 was also supported and shown information adoption was found to have a positive influence on mobile purchase intention. Finally, it was shown that information adoption and mobile purchase intention have a positive effect on social commerce intention, supporting H9 and H11.

Hypothesis	Structural Path	T Values	P Values	Result
H1	Information Quality → Information Usefulness	3,328	0,001	Accepted
H2	Information Credibility → Information Usefulness	4,797	0,000	Accepted
H3	Needs of Information → Information Usefulness	2,498	0,013	Accepted
H4	Information Usefulness → Information Adoption	3,386	0,001	Accepted
H5	Attitude Toward Information → Information Adoption	6,133	0,000	Accepted
H6	Attitude Toward Information → Purchase Intention	1,417	0,156	Rejected
H7	Information Adoption → Purchase Intention	5,520	0,000	Accepted
H8	Information Adoption → Mobile Purchase Intention	2,188	0,029	Accepted
H9	Information Adoption → Social Commerce Intention	11,366	0,000	Accepted
H10	Mobile Purchase Intention → Purchase Intention	3,487	0,000	Accepted
H11	Mobile Purchase Intention → Social Commerce Intention	4,440	0,000	Accepted

Figure 8: Hypothesis Testing Result

5. Conclusion and Recommendation

The purpose of this study is to reveal which MWOM factors influence purchase intention via the WhatsApp platform, whether such impacts on customer mobile purchase intention can lead to both offline purchase intention and social commerce intention. The current study used a research model developed MWOM by Erkan et al. (2019) to examine the antecedents and consequences of MWOM based on the IACM, which has already been slightly modified in the model. Furthermore, given that prior research has been conducted in the context of eWOM, this study confirms some association from a mobile marketing standpoint.

The study concludes that essential indications of the information usefulness of MWOM in messaging applications are information quality, information credibility and needs of information. This extends the work of Erkan et al. (2019) in the context of MWOM. It has already been proven that customers consider MWOM information to be useful when the information is delivered from a high-quality source, credible, and information needed within a messaging application. Because MWOM in messaging apps typically originates from family members or friends or relatives, the information is credible. People might consider the quality of the MWOM information that came from other people who are not really close to them. With the need for information, people can get any MWOM information on any channel.

The study also shows that both the use of information and attitudes towards it have a significant impact on customer adoption of MWOM information. People will likely adopt it if they believe the information they obtain through messaging programs to be useful. (Erkan et al., 2019). This discovery adds significantly to the body of MWOM literature and is consistent with those found by Erkan and Evans (2016). Conversely, one unexpected finding was that attitude toward information did not have an influence on offline purchase intention. These findings did not support the argument by Erkan et al. (2019) that people will be more likely to adopt information if they have a good attitude toward it. It confirms that individuals are not direct to adopt MWOM information when they have positive attitudes towards the MWOM information.

Furthermore, the other findings show that information adoption has an influence on offline purchase intention. It seems that it would be important for customers to adopt MWOM information when the purchase is offline. It was also discovered that MWOM information adoption has a substantial impact on mobile purchase intention and social commerce intention. In brief, customers use MWOM information to make all of their purchases (offline, mobile, and social media). On the other hand, mobile devices have made it easier for customers to communicate information about goods and services, which may have facilitated their mobile purchase (Wang et al., 2013).

This research looks at MWOM factors that influence consumer purchase intention and may boost the possibility that customers will buy SYFO's products. The factors that should be considered by SYFO are information quality, information credibility, needs of information, information usefulness, and information adoption. SYFO can do MWOM marketing strategy, both online and offline.

If online, SYFO can focus on the MWOM factors that can influence online purchase intention and vice versa. There is more opportunity to spread awareness to the audiences by using the features on WhatsApp such as WhatsApp community. If the companies provide the MWOM information through WhatsApp, it is better to give the best copywriting that is related to the target market with complete information such as FAQ (Frequently Asked Questions), the link

social media, link website, the offline store, or the link for e-commerce. Using affiliate or modest incentives can be chosen to get a broader target market in an efficient way.

To attract the offline intention to buy from customers, it's recommended for SYFO to not really pay attention to one factor that has already been rejected from the result of data analysis, which is attitude toward information. Because individuals who receive attitudes towards MWOM messages, might not use these messages to make an offline purchase. Instead, purchase intentions on mobile devices influence those of consumers offline. As a result, marketers can increase their offline sales by using mobile ads in messaging applications.

However, the adoption of MWOM information was found to have a considerable impact on both social commerce intention and mobile purchase intention, according to our findings. In other words, customers use MWOM information to make purchases on mobile devices or social media. In terms of broader implications, the key indicators determining mobile purchase intention and social commerce intention are information adoption and information usefulness in messaging applications. Because the ability to communicate directly with customers is provided by messaging apps for e-marketers, SYFO or other companies should actively use messaging applications as a result of the findings of this study, as well as provide relevant information about products and services where customers can easily find it.

6. Limitation of Study

The current study's findings have some limitations for both subject and discussions. For the subject, this study assesses the target market of SYFO's company which is housewives in Bandung, Indonesia who are likely to cook. Other companies that have similar backgrounds may adapt the recommendation from this study. However, study and exploration of new topics and discoveries utilizing various samples is not limited. For discussions, this study was conducted in the context of mobile marketing, focused MWOM marketing through WhatsApp platform. Therefore, it is proposed that this study be replicated in the social media and online shopping contexts.

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