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An Analysis of Comparing Effectiveness of Word of Mouth and Electronic Word of Mouth on The Registration of New Students at Bali State Polytechnic

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***Abstract*— This research goal is to analyze the effectiveness of traditional word of mouth (WOM) on the registration of new students at Bali State Polytechnic. The idea of word of mouth (WOM) communication has received a lot of attention both in business and academia. WOM traditionally involves personal communication between family, friends, and other people that knows each other. At present time, the rise and spread of the internet has lead the emergence of new form of word of mouth, electronic word of mouth (EWOM) which is nowadays considered as one of the most influential informal media among consumers, business, and the populations at large. While traditional word of mouth (WOM) and electronic word of mouth (EWOM) have both been shown to highly impact consumer behavior, there is deficit in recent research of how they compare to one another. Understanding which is more effective can be an input for the Bali State Polytechnic in determining a better promotion strategy to increase the number of students' applicants in accordance with the ideal ratio standard for admission. The sampling technique is probability sampling using the proportionate stratified random sampling method to establish criteria for respondents, the new students that is registering at Bali State Polytechnic. 94 respondents collected as sample in this research. Online questionnaire via GoogleDocs is used for collecting data and the analyzed using the one-way analysis of variance (ANOVA). The results shows that there were differences in the effectiveness of WOM and EWOM methods on the registration of new students at Bali State Polytechnic. From the descriptive table, the average of WOM method is 14, 95 and EWOM is 14, 18. The results indicate that WOM is more effective than EWOM on the registration of new students at Bali State Polytechnic.**

Keywords—word of mouth, traditional word of mouth, electronic word of mouth, Introduction

I. INTRODUCTION

The importance of word of mouth communication has been researched for several decades in the marketing field, both by researches and marketing practices. One of the earliest WOM definition authors Arndt, 1967 suggested that WOM is a person to person communication tool, between a communicator and a receiver, who perceives the information about a brand, product, or service as non-commercial. According to Higie et al., 1987 conversations motivated by salient experience are likely to be an important part of information diffusion. WOM is widely regarded as one of the most influential factors affecting consumer behavior (Daugherty and Hoffman, 2014). This influence is especially important with intangible products that are difficult to evaluate prior to consumption, such as tourism or hospitality, or in this study, education services. WOM is not only conceptually important but it is also believed that it carries a significant managerial impact, based on the well documented results of customer to customer. WOM is considered the most important information source in consumers' buying decisions and intended behavior (Litvin et.al., 2008). WOM is perceived to be superior due to more reliable information, so this type of communication with non-commercial messages has a higher persuasive level with high trust and credibility (Jalilvand, 2012).

Among the numerous channels through which a person today may receive information word of mouth plays an important role in interpersonal communication because it is believed that they are more credible. Nowadays traditional word of mouth has evolved into a new form of communication, recognize as electronic word of mouth or eWOM (Yang, 2017). eWOM communications refers to any positive or negative statement made by potential, actual, and former customers about a product or company via the internet (Hennig-Thurau et.al., 2004). In fact, several studies shoes that EWOM has surfaced as a new communication channel between customers and has become one of the most effective marketing tools in use today (Zhang et.al., 2010; Jin & Phua, 2014). This form of communication has taken on special importance with the emergence of online platforms, which have made it one of

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the most influential information sources on the Web (Abubakar and Ilkan, 2016). Jansen, 2009 in his research said that although similar to WOM in general, Electronic Word-Mouth (eWOM) can provide new alternatives to share information anonymously and confidentially, and can also cross the boundaries of distance and territory. The application of eWOM in social media is considered to be far more effective because it can be touched by the wider community. By implementing eWOM on social media, business people can benefit from the low cost and high impact of the process. With the development of one's mindset, consumers will become more expressive in convincing other consumers through opinions from their experiences.

Many studies have shown how both traditional word of mouth and electronic word of mouth highly impact consumer behavior in the marketplaces, however there are deficit in studies showing how they compare to each other. Porter, 2017 stated that only a handful of articles published in the top marketing journals have examined WOM by itself or in tangent with eWOM in the last five years. There is no shortage of research on eWOM, but very little research has compared WOM and eWOM to see wheter the two constructs are related (Lamberton and Stephen, 2016). In the few papers that contain both WOM data and eWOM data, both types of data are not analyzed together. This research is comparing the effectivity of WOM and eWOM on the registration of new students at Bali State Polytechnic. It is well known that higher educational institutions relied on word of mouth and the tangible evidence of their output (stories from the alumni, content of their curriculum, reputations of their lecturers, their culture, their relation with working industry and so forth) for their branding and marketing purposes. The universities brand image was often determined by the alumni they produced and the way people or society spoke about it. This is the way of universities attracting the right students to apply for registration. However the students are now digital customers or known as Generation Z that interact as much if not online that they do offline. This is why educational institutions should create marketing strategies that match the effectiveness both online and offline ones.

A. Literature Review

a. Traditional Word of Mouth (WOM)

Word of mouth (WOM) has been defined as "the transfer of information from one customer (or a group of customers) to another customer (or group of customers) in a way that has the potential to change their preferences, actual purchase behaviour, or the way they further interact with others" (Libai et al., 2010). American Word of Mouth Marketing Association (WOMMA) defined word of mouth (WOM) as 'the act of consumers providing information to other consumers'. It is the art and science of building active, mutually beneficial consumer-to-consumer and consumer-to-marketer communications' (WOMMA, 2008). In this definition, word-of-mouth becomes a generic term, including tactics such as so-called 'viral marketing' or 'buzz marketing' (Sernovitz, 2007). Types of WOM communication include face-to-face interaction, telephone, and video conferencing (Chung and Park 2012). In face-to-face interaction, both communicative parties share the same space and time. The receiver may perceive not only verbal and nonverbal cues the sender wants to convey, but also non-voluntary signals such as demographic or environmental cues (e.g., unpleasant smells, distracting sounds). In the consumer decision making process, the method by which consumers obtain information can highly influence their decisions. Due to the fact that in-person word of mouth communication is perceived to be honest and real sharing of true opinions and information about products and services, it is fundamentally different from other forms of marketing (Balter & Butman, 2005). One of the defining aspects of word of mouth in either an offline or online form is that the message is non-commercialized. This means that the source of the WOM communication is not incentivized by a firm to provide positive or negative information (Pruden et al. 2004). Allsop et.al., 2007 stated that "The reasons for WOM's power are evident: word of mouth is seen as more credible than marketer-initiated communications because it is perceived as having passed through the unbiased filter of 'people like me'". Consumers perceive WOM to be more ―reliable and trustworthy‖ because there are no ulterior motives for other consumers to share their personal experiences with the product or service (Solomon 2015).

b. Electronic Word of Mouth (eWOM)

The advent of the Internet and its interactive capabilities introduced a new form of word-of-mouth, called electronic word-of-mouth (eWOM), that exists online and allows consumers, who are typically strangers, to interact with one another and share their opinions about various goods and services through review sites, social networking sites, blogs, content-sharing sites and other forms of social media (Lehmann, 2015). As more and more people went online, they started to exchange product information electronically (Cheung and Thadani, 2010) and broadcasted consumer preferences and experiences (Dumenco, 2010) through the high reach of interactive Web 2.0 technologies (Huang et al., 2011). Although eWoM may be less personal than traditional WoM, it is seen as more powerful because it is immediate, has a significant reach, is credible, and is publicly available. The Internet has enabled new forms of communication platforms that further empower both providers and consumers, allowing a vehicle for the sharing of information and opinions both from Business to Consumer, and from Consumer to Consumer. Electronic word-of-mouth (eWOM) communication refers to any positive or negative statement made by potential, actual, or former customers about a product or company, which is made available to a multitude of people and institutions via the Internet (Hennig-Thurau et al., 2004). This consumer-to-consumer communication has become increasingly influential in consumers' purchasing decisions and has shifted the power of influence from marketers to consumers, as today's consumers are no longer passive receivers of product-related information but rather active communicators who seek fellow consumers' opinions and offer their own (Chu & Choi, 2011). "So while WOM has always been important, its importance today is higher than ever. As the credibility of 'official' marketing messages is waning, the power of one consumer

recommending a product to another — or to many — is waxing" (Keller, 2007). Over the past decade, the topic of eWoM and 'viral marketing referrals' have caught the attention of practitioners and academics alike, as these strive to adapt to the changing technical and social environment and keep pace with consumer behavior. Most researchers agree that eWoM plays a significant role in public affairs and marketing today (Hung and Li, 2010; Lee, 2009).

c. WOM vs eWOM

Traditional word of mouth (WOM) is different from electronic word of mouth (eWOM) in several ways. Traditional word-of-mouth involves spoken, person-to-person communication, whereas eWOM is not face-to-face communication but rather the passive reading of a computer screen or active writing of a message (Andreassen & Streukens, 2009; Arndt, 1967a; Rogers, 1995). Traditional WOM takes place privately and conversations are perishable; eWOM takes place publicly online, on platforms such as blogs, review sites and social networking sites, and, because it is written, is stored for future reference (Andreassen & Streukens, 2009; Chu & Choi, 2011). e-WOM takes place in a more complex technologically mediated context whereas traditional WOM occurs normally in a face-to-face or one-on-one fashion, with participants in close proximity, drawing from a wealth of social and contextual clues (King, Racherla and Bush, 2014). Kim, Seo and Schrier (2014) compared the two forms (traditional WOM and e-WOM) and found that in terms of expertise, there was no difference in perceived credibility between these two. However, unlike traditional WOM, e-WOM communications have unprecedented scalability and speed of diffusion (Cheung and Thadani, 2012). Marketing literature has historically focused on eWOM, but less attention has been paid to traditional offline WOM (Lamberton and Stephen 2016, Baker et al. 2016; Cheug et al. 2012). Porter, 2017 concluded that WOM differed from eWOM in the context of credibility in the creation phase of word of mouth. Research on word of mouth within an educational setting has been limited and left largely unexplored (Lehmann, 2015). Although no existing studies have specifically examined word of mouth influence on the college choice, there are limited studies that have examined the perceived influence of social media on the college choice process and found that social media is considered by prospective students to be the least important, least influential and least reliable source of information among college search and enrollment resources (Constantinides & Zinck Stagno, 2011; Noel-Levitz, 2014, Parrot and Tipton, 2010). In terms of the college choice, existing research also suggests that traditional WOM will be perceived by prospective students as more influential than eWOM. Although no existing studies specifically examine eWOM's influence on the college choice, there are limited studies that have examined the perceived influence of social media on the college choice process and found that social media is considered by prospective students to be the least important, least influential and least reliable source of information among college search and enrollment resources; admissions counselors, friends, relatives and current students at the school of interest were all considered more influential than social media in terms of influencing the enrollment decision (Constantinides & Zinck Stagno, 2011; Noel-Levitz, 2014, Parrot and Tipton, 2010).

II. RESEARCH METHODS

In this study researcher is comparing the effectiveness of wom and ewom on the registration of new students at Bali State Polytechnic. Researchers utilized an online survey which is considered as the most effective method of gathering data from a large sample of respondents. The platform chosen for hosting the survey was docs.google.com, which has acquired credibility and is perceived as an adequate tool for conducting online surveys within academic research. New students that are registering at Bali State Polytechnic were selected as the population. The sampling technique used is probability sampling using the proportionate stratified random sampling method to establish criteria for respondents, where 94 respondents collected as sample in this research. Validity, Reliability, and One-Sample Kolmogorov-Smirnov Test was conducted before the data analysis.

TABLE I RESULT OF RELIABILITY STATISTICS

Cronbach's Alpha	N of Items
.664	8

TABLE II RESULT OF ONE-SAMPLE KOLMOGOROV-SMIRNOF TEST

		WOM	EWOM
N		94	94
Normal Parameters[a,b]	Mean	14.95	14.18
	Std. Deviation	2.856	2.253
Most Extreme Differences	Absolute	.135	.103
	Positive	.080	.096
	Negative	-.135	-.103
Kolmogorov-Smirnov Z		1.310	.995
Asymp. Sig. (2-tailed)		.065	.275

a. Test distribution is Normal.
b. Calculated from data.

Likert-type five point scale was used to measure the effectiveness of wom and ewom; 1= strongly disagree, 5 = strongly agree). The question items in the survey are using Koji Ishida et.,al (2016) study.

III. RESULT AND DISCUSSION

A total of 110 surveys were collected of which 94 were determined usable. One-way analysis of variance (ANOVA)

were conducted to determine whether there are any statistically significant differences between the means of two or more independent (unrelated) groups. Below is the table that shows the output of the ANOVA analysis and we can see that the significance value is 0.043 which is under 0.05 and therefore there is a statistically significant differences in wom and ewom.

TABLE III RESULT OF ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	27.574	1	27.574	4.168	.043

TABLE IV DESCRIPTIVES

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
WOM	94	14.95	2.856	.295	14.36	15.53	4	20
EWOM	94	14.18	2.253	.232	13.72	14.64	7	20
Total	188	14.56	2.594	.189	14.19	14.94	4	20
Within Groups			1230.660	186	6.616			
Total			1258.234	187				

From the descriptive table below we can see that wom is more effective than ewom with mean 14.95 > 14.18.

The study shows that traditional WOM to be more effective than eWOM. The survey results also indicate that besides of using traditional WOM, respondents also gather related online information and opinions before they decided to register at Bali State Polytechnic. The results of this study are consistent with previous research that traditional WOM is one of the most influential sources of information (Crotts, 1999; Mack, Blose & Pan, 2007). Sarin and Pal, 2014 concluded that respondents still prefer direct face to face talk with their families or friends while recommending, but the momentum can be seen shifting towards online platform including facebook, twitter, etc. Koji Ihida et.al., 2016 results of study also support that traditional WOM has greater influence on destination image compared to eWOM, including personal and commercial eWOM. Such result corresponds with the idea by Brown et al. that though eWOM generates some kind of "authority" it is also viewed as more biased. They only perceive eWOM as some kind of supplemental information source. Porter, 2017 empirically establishes and replicates the higher impact of traditional WOM than eWOM on consumer attitudes, specifically on attitude toward the message. The study findings support the reasoning that consumers rather listen to WoM communication than to companies' formal messages, including their advertisements (Lee and Youn, 2009). Having a better understanding of WOM and eWOM strategies can helps education institutions such as Bali State Polytechnic to focus on the right strategies. Teo and Sautar, 2012 conduct a study with the result of the right WOM antecedents which are functional service quality, satisfaction and affective commitment. They also suggest that if the institutions goals is to increase student enrollments, in which WOM plays an important role, the management of student services is crucial and should be seen as a marketing tool, as well as an administrative process.

IV. CONCLUSION

This study is far from perfect, there are few limitations on the research. First, study was conducted in Bali State Polytechnic and respondents were only the new students, therefore the findings are considered to be not too high in validity and possessing generalizability quality. It is widely believed that college students do not fully represent the population as a whole. Thus, it is possible that if this study were conducted with a different sample it may yield different result. Future studies could further explore more wide respondents and outside one education institutions, which would provide a better understanding of the issues examined in this study. This research is also has been limited to only comparing effectiveness of WOM and eWOM with only limited factors examined. Future direction in this research stream would be to explore empirical credibility across WOM and eWOM types. Extending this study to include additional variables may provide additional results worth examining. And lastly, this study only examined forms of word of mouth communication in a specific segment of the higher education institutions.

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