Global Scientific JOURNALS

GSJ: Volume 7, Issue 1, January 2019, Online: ISSN 2320-9186
www.globalscientificjournal.com

BLOGGING FOR BUSINESS: IMPACT IN SALES VOLUME AND OPERATIONAL COST

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KeyWords
Blog, Social Networking Sites, Small Medium Enterprise, MARA Entrepreneurs, Sales Volume, Operational Cost

ABSTRACT

The purpose of the research was to find and analyse the effects of Blog on Small Medium Enterprises (SMEs) in Perak in terms of sales volume and operational cost using quasi-experimental design. The independent variables in this research were two treatment modules: SNS Training and Without SNS Training. The dependent variables were sales volume and operational cost. 60 entrepreneurs were purposely chosen from MARA Negeri Perak. The entrepreneurs chosen for this research are similar in terms of entrepreneur ratio in the business category and assigned into two groups to interact with either SNS Training or Without SNS Training. The data obtained were analysed by carrying out Descriptive and Independent t-Test parametric statistical techniques. The results showed that the entrepreneurs who used the SNS perform much better in their business compared to those who not using SNS. Conclusion from the research findings indicates that the entrepreneurs get the enhancement of sales volume and the operating costs was decrease.

INTRODUCTION

Now days, the global business market requires a method that is rapid and simultaneous communication, inter connected and easy to manage. Technological advances make room for businesses to communicate responsibly with a social networking site as an alternative technology.

According to Boyd and Ellison (2007), SNS can be define as web-based services that allow people to build a public or semi-public profile within a bounded system, articulate a list of other users with whom they share a connection and view and traverse their list of connections and those made by others within the system.

Since 2002, hundreds of social network sites have launched with both professional (e.g., LinkedIn) and non-professional (e.g., MySpace) orientations. Unlike most professional sites, non-professional sites typically feature user's interest, so they are the only ones relevant to the present research. Four of the largest non-professional sites in the English-speaking world are MySpace, Facebook, Friendster and Orkut [2].

According to the Mohmed and Rahman (2010), social networking has the features to promote business because it is free and simple business building tool. Most social networking sites are free to join and if the business is conducted with a limited advertising budget, this is the place for company to advertise for free. Companies do not have to be an internet guru or marketing expert to use it, to build a customer list or to get a list of providers. In fact, Mohmed and Rahman (2010) also stated that if the company does not use social networking to promote their business, they should really try it.

There are a lot of social media websites ranging from social networks (e.g. Facebook, LinkedIn), private enterprise social networks (e.g. Yammer, Socialcast, Jive), content-sharing websites (e.g. YouTube, Flickr) to Wikis (e.g. Wikipedia), blogs (e.g. Word Press, Blogger) and micro-blogs (e.g. Twitter) [4].

Lately, it has been widely discovered that SNS has functioned not only as a medium of communication, but also as a medium for Small and Medium Enterprise (SME) business entrepreneurs to promote their businesses online. This was highlighted by Harris and Rae (2009), where SME business entrepreneurs are now recognizing the potential of SNS for the development of their brands and to build relationships with key customers.

Blog also can be one of platform to promote SME business. A blog is a type of publishing service that allows multi-user blogs with time-stamped entries and can be defined as a site that does not have some external editing happen and act as a platform for reviews online, which usually will be updated regularly [6]. Among the remarkable aspects about blogging are, it provides an open platform for knowledge sharing with the readers. Therefore, it helps to promote the formation of small communities or people who are interested in a particular topic [7]. Blogs have become among many powerful tools for debate and influence; especially the blogs that discuss political, financial and economic [6]. The powerful influence of blogs has indirectly become a powerful tool for SME business promotion for an organization [8].

Research Objective

The objectives that the author wanted to achieve through this research is:

- To identify and analyse the effect of SNS technology on business in Perak in terms of volume of sales and operating costs.

Research Questions

There are several questions need to be questioned through this research. They are as follows:

- Is there a significant difference of SNS technologies (blog) on business in Perak in terms of sales volume?
- Is there a significant difference of SNS technologies (blog) on business in Perak in terms of operational cost?

Research Methodology

The overall population for this research is MARA SMEs business and this research focused on the new MARA SMEs entrepreneur in Perak, which has 179 entrepreneurs [9]. From this population, a sample of 60 entrepreneurs was purposely chosen from MARA Negeri Perak. The entrepreneurs chosen for this research were similar in terms of entrepreneur ratio in the business category. Purposive sampling was employed to select samples for this research and the rationale of using this method of sampling is that it is the primarily used to select samples for specific purposes and if the researcher believes that the chosen sample is the representation of the given population [8]. For this research, the sample size (n=60) was determined using the Central Limit Theorem [10], where the sample size for each group should reach at least n = 30 and research specifying a 5% margin of error. This margin of error signifies that the researcher has a 95% confidence level that the sample chosen figures the whole population.

The new MARA entrepreneurs were categorized by way of have been running the business ten years or less in Perak. The respondents have been categorized into two (2) groups and each group will have 30 persons in mix business categories. From the 179 lists of entrepreneurs, they have been classified into five (5) categories of business, including food, clothing, beauty centre, wedding planner and computer and phone accessories. In terms of to balance, the total of the business categories chosen for this research, there are three (3) business categories are appropriate, namely food, clothing and beauty centre. Treatment Group and Control Group will have 30 businesses that categorized in 10 businesses each group, namely food, clothing and beauty centre. The total of respondents for two (2) groups are 60 persons.

This research employed a quasi-experimental research design. It involved two (2) independent variables and three dependent variables. In this research was to determine the effect of SNS treatment on the dependent variables, namely sales volume and operational cost. This research appointed the selected SNS, which is blog as a treatment for the experimental or treatment group to measure the dependent variables.

Furthermore, this quasi-experimental research involved a pre-test and posttest those were conducted before and after the treatment session. For this, pre-test and post-test questions were developed to measure the impact of SNS to the new SMEs MARA business. These pre-test questions were given to the entrepreneurs from both experimental groups, before the intervention. Then, the entrepreneurs were given the treatment and at the end of the intervention, both groups were given the post-test questions. The entrepreneurs' results were recorded to determine the effectiveness of the treatment on their business.

Research Hypotheses

From these research questions, two hypotheses were formulated. These hypotheses were formulated as null hypotheses. There are several reasons that constitute to this formulation. First, the null hypotheses provided the researcher with the starting point for statistical test. It also allows the researcher to test the significance level α, at 0.05 and therefore concludes with either reject of fail to reject the null hypothesis statement. Second, the sample of the research is from the same population and the chances that the groups will not differ in terms of their performance in the business are high.

The null hypotheses that correspond to the research questions are as follows:

H_{01a}: There is no significant difference in sales volume between entrepreneurs who experienced the SNS technology (Blog) treatment and entrepreneurs without SNS technology (Blog).

H_{01b}: There is no significant difference in operational cost between entrepreneurs who experienced the SNS technology (Blog) treatment and entrepreneurs without SNS technology (Blog).

Test of Normality of Sales Volume Scores

Before statistical analysis was conducted, several analyses were done in order to check the distribution of the scores on the dependent variables. The first dependent variable was the sales volume scores. Assumption of normal distribution of the sales volume

scores was tested. Table 1.0 illustrates the Skewness and Kurtosis values of the overall entrepreneurs' scores.

Table 1.0 Skewness and Kurtosis Values for Sales Volume Scores

Dependent Variable	N	Skewness		Kurtosis	
	Statistic	Statistic	Std. Error	Statistic	Std. Error
Overall Sales Volume	60	.175	.309	-1.225	.608

The statistical values as shown in Table 1.0 indicate that for this dependent variable, the value for both Skewness and Kurtosis test is somewhere in the range of +/-2.50, with a Skewness of 0.175 (SE = 0.309) and a Kurtosis of -1.225 (SE= 0.608). Based on the range of the value which fixed by George and Mallery (2010), it is found that the Skewness and the Kurtosis values are in the range, which indicates the distribution of the sales volume scores is close to the normal curve (Table 1.0). The finding is supported by the Q-Q Plot (Figure 1.0) which show that the entrepreneurs' sales volume scores are approximately normally distributed.

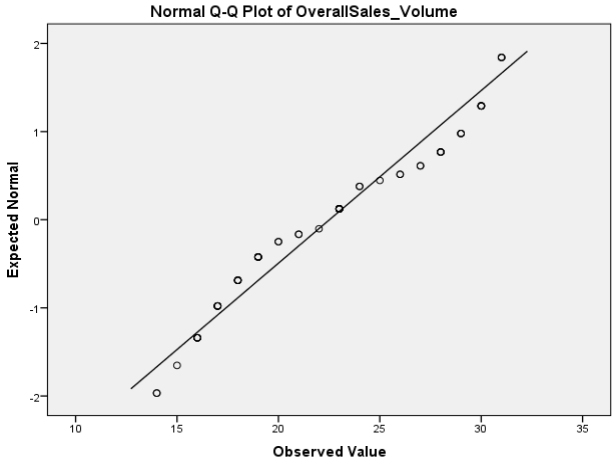

Figure 1.0 Q-Q Plot of Overall Sales Volume Scores

To further investigate the distribution of the sales volume scores based on two treatment modules, the scores of both modules, SNS Training and Without SNS Training, was tested for its Skewness and Kurtosis values. The scores were also tested statistically using the Shapiro-Wilk analysis. The statistical values of these analyses are shown in Table 2.0. The findings are supported by the Q-Q plot (Figure 2.0).

Table 2.0 Test of Normality of Sales Volume Scores

Dependent Variable	Skewness		Kurtosis	
	Statistic	Std. Error	Statistic	Std. Error
SalesVolume_PostTestTreatment (SNS Training)	.250	.309	-1.475	.608
SalesVolume_PostTestControl (Without SNS Training)	.516	.309	-.507	.608

The statistical values as shown in Table 2.0 indicate the values of the Skewness and Kurtosis test for both treatment modules are in the range of +/-2.50. For SNS Training a Skewness of 0.250 (SE=0.309) and a Kurtosis of -1.475 (SE= 0.608) were obtained and from without SNS Training, a Skewness of 0.516 (SE=0.309) and a Kurtosis of -0.507 (SE= 0.608) were obtained, indicating that the distribution of data is normal. The shape of the distribution can also be seen in Q-Q plot (Figure 2.0). In all the visual inspections, the sales volume scores are approximately normally distributed for both treatment modules.

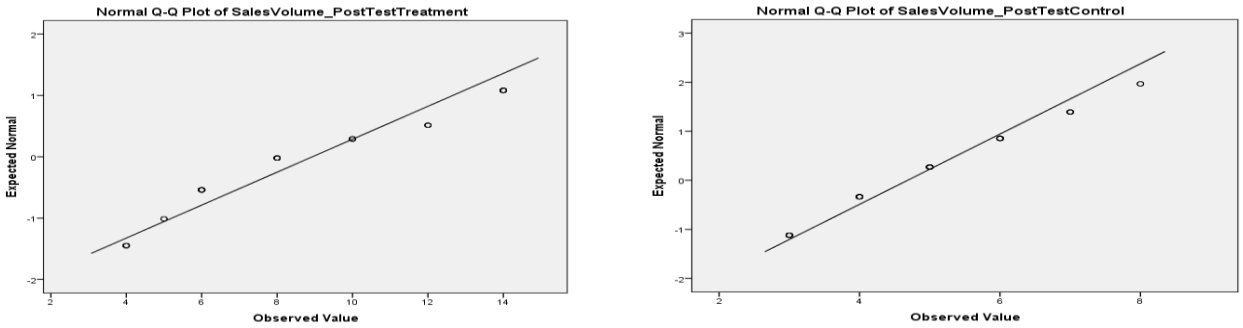

Figure 2.0 Q-Q Plots of Sales Volume Scores for Treatment Module

Test of Normality of Operational Cost Scores

To find the distribution of operational cost scores, overall operational cost scores were analysed using the test of normality. Table 3.0 illustrates the statistical values of Skewness and Kurtosis analysis for the entrepreneurs' overall operational cost scores.

Table 3.0 Skewness and Kurtosis Values for Operational Cost Scores

Dependent Variable	Skewness		Kurtosis		Shapiro-Wilk
	Statistic	Std. Error	Statistic	Std. Error	Sig.
Overall_OperationalCost	-.159	.309	-.183	.608	0.059

From this analysis, it is found that the Skewness and Kurtosis values for the entrepreneurs' operational cost scores are in the range of +/-2.50 which leads to the conclusion that the distribution of the operational cost score is close to the normal curve. The statistical values as shown in Table 3.0 indicate that for this dependent variable, a Skewness of -0.159 (SE= 0.309) and a Kurtosis of -0.183 (SE= 0.608) were obtained. The Shapiro-Wilk's *p*-value is 0.059 which is greater than or equal to 0.05, again concluding that the data comes from a normal distribution. The findings are supported by the Q-Q plot (Figure 3.0) which show that the operational cost scores are approximately normally distributed.

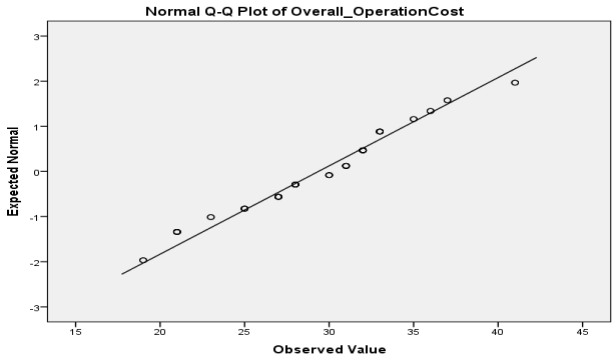

Figure 3.0 Q-Q Plot of Overall Operational Cost Scores

To further investigate the distribution of the operational cost scores based on two treatment modules, the scores of both modules, SNS Training and Without SNS Training, was tested for its Skewness and Kurtosis values. The scores were also tested statistically using the Shapiro-Wilk analysis. The statistical values of these analyses are shown in Table 4.0. The findings are supported by the Q-Q plot (Figure 4.0).

Table 4.0 Test of Normality of Operational Cost Scores

Dependent Variable	Skewness		Kurtosis	
	Statistic	Std. Error	Statistic	Std. Error
OperationalCost_PostTestTreatment (SNS Training)	.082	.309	.926	.608
OperationalCost_PostTestControl (Without SNS Training)	.167	.309	-.610	.608

The statistical values as shown in Table 4.0 indicate the values of the Skewness and Kurtosis test for both treatment modules are in the range of +/-2.50. For SNS Training a Skewness of 0.082 (SE=0.309) and a Kurtosis of 0.926 (SE= 0.608) were obtained and from without SNS Training, a Skewness of 0.167 (SE=0.309) and a Kurtosis of -0.610 (SE= 0.608) were obtained, indicating that the distribution of data is normal. The shape of the distribution can also be seen in Q-Q plot (Figure 4.0). In all the visual inspections, the operational cost scores are approximately normally distributed for both treatment modules.

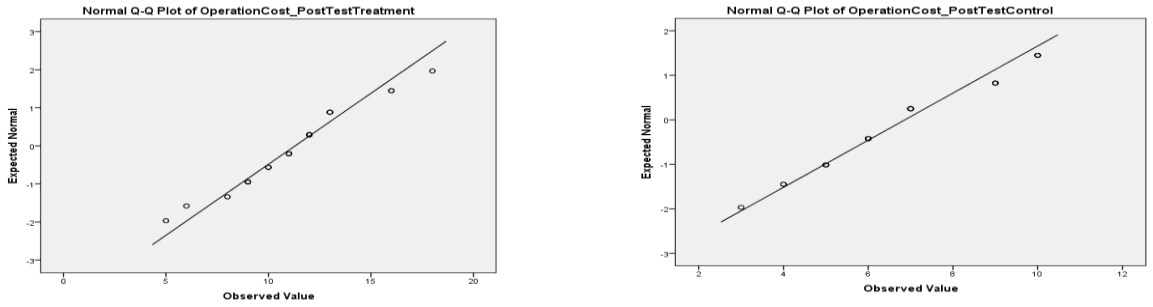

Figure 4.0 Q-Q Plots of Operational Cost Scores for Treatment Module

Testing of Hypothesis H_{01a}

H_{01a}: *There is no significant difference in sales volume between entrepreneurs who experienced the SNS technology (Blog) treatment and entrepreneurs without SNS technology (Blog).*

Hypothesis H_{01a} examined the main effects of the two independent variables, SNS Training and without SNS Training, on the dependent variable. In order to examine which treatment module has a significant difference on entrepreneurs' business sales volume, an independent t-Test analysis was conducted on the sales volume scores. These entrepreneurs' sales volume scores were derived from the differences between the post-test scores and pre-test scores. Prior to inferential statistical analysis, the mean and standard deviation of the pre-test and post-test scores the experimental groups were calculated. Table 5.0 presents the descriptive statistics for the pre-post and post-test scores between the experimental groups.

Table 5.0 Descriptive Statistic for Pre-Test and Post-Test Sales Volume Scores

Module		Mean		Std. Deviation
		Statistic	Std. Error	Statistic
Without SNS Training	PreTest	3.7667	.17075	.93526
	PostTest	5.1333	.24790	1.35782
	Sales Volume	1.3667	.20613	1.12903
SNS Training	PreTest	4.5667	.27827	1.52414
	PostTest	8.9667	.68226	3.73689
	Sales Volume	4.4000	.44360	2.42970

From the descriptive statistical analysis (Table 5.0), it is found that 30 entrepreneurs involve in business without SNS Training and 30 entrepreneurs used SNS (Blog) in their business. The mean for pre-test scores for without SNS Training is 3.77 and the mean for post-test scores is 5.13. As for SNS Training, the mean for pre-test scores is 4.57 and the mean for post-test scores is 8.97. The difference in means scores between pre-test and the post-test scores for module without SNS training is 1.37. The mean scores determined that

entrepreneurs who used the SNS in their business obtained higher scores as the mean score for SNS Training is 4.40 compared to without SNS Training. This indicates that the entrepreneurs used SNS training scored higher on their sales volume compared to the entrepreneurs is not using SNS in their business. This means that the entrepreneurs were more successful in their enhancement of sales volume when there are doing business using SNS (Blog).

To further investigate the hypothesis, an independent t-Test was conducted to see if there is a significant difference in sales volume between entrepreneurs in treatment module SNS Training and the module without SNS Training. Table 6.0 illustrates the Independent t-Test analysis results.

Table 6.0 Independent t-Test Analysis for Sales Volume between Treatments Modules

Dependent Variable	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
SalesVolume	6.189	29	.000	3.03333	2.0310	4.0357

Table 6.0 describes whether the experimental groups are significantly different terms of the sales volume scores. The magnitude of the difference in the mean scores of SNS Training and without SNS Training is 3.03. The *p*-value is 0.000, which is less than 0.05, therefore indicating that there is a significant difference in SNS Training between entrepreneurs in treatment module SNS Training (M=4.40, SD = 2.43) and treatment module without SNS Training (M=1.37, SD=1.13). Hence, Hypothesis H_{01a} is rejected. This means that entrepreneurs who used SNS (Blog) obtained enhancement of sales volume compared to entrepreneurs who not used the SNS.

Testing of Hypothesis H_{01b}

H_{01b}: *There is no significant difference in operational cost between entrepreneurs who experienced the SNS technology (Blog) treatment and entrepreneurs without SNS technology (Blog).*

Hypothesis H_{01b} examined the main effects of the two independent variables, SNS Training and without SNS Training, on the dependent variable. In order to examine which treatment module has a significant difference in entrepreneurs' business operational cost, an independent t-Test analysis was conducted on the operational cost scores. These entrepreneurs' operational cost scores were derived from the differences between the post-test scores and pre-test scores. Prior to inferential statistical analysis, the mean and standard deviation of the pre-test and post-test scores the experimental groups were calculated. Table 7.0 presents the descriptive statistics for the pre-post and post-test scores between the experimental groups.

Table 7.0 Descriptive Statistic for Pre-Test and Post-Test Operational Cost Scores

Module	Score	Mean		Std. Deviation
		Statistic	Std. Error	Statistic
Without SNS Training	PreTest	5.5000	.34157	1.87083
	PostTest	5.7000	.36562	2.00258
	Operational Cost	.2000	.16884	.92476
SNS Training	PreTest	6.8667	.34818	1.90703
	PostTest_	11.3000	.49399	2.70568
	Operational Cost	4.4333	.62272	3.41077

From the descriptive statistical analysis (Table 7.0), it is found that 30 entrepreneurs involve in business without SNS Training and 30 entrepreneurs used SNS (Blog) in their business. The mean for pre-test scores for without SNS Training is 5.50 and the mean for post-test scores is 5.70. As for SNS Training, the mean for pre-test scores is 6.87 and the mean for post-test scores is 11.30. The difference in means scores between pre-test and the post-test scores for module without SNS training is 0.200. The mean scores determined that entrepreneurs who used the SNS in their business obtained higher scores as the mean score for SNS Training is 4.43 compared to without SNS Training. This indicates that the entrepreneurs used SNS training scored higher on their operational cost compared to the entrepreneurs is not using SNS in their business. This means that the entrepreneurs could decrease their operational cost when

there are doing business using SNS (Blog).

To further investigate the hypothesis, an independent t-Test was conducted to see if there is a significant difference in operational cost between entrepreneurs in treatment module SNS Training and the module without SNS Training. Table 8.0 illustrates the Independent t-Test analysis results.

Table 8.0 Independent t-Test Analysis for Operational Cost between Treatments Modules

Dependent Variable	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Operational Cost	6.758	29	.000	4.23333	2.9522	5.5145

Table 8.0 describes whether the experimental groups are significantly different terms of the operational cost scores. The magnitude of the difference in the mean scores of SNS Training and without SNS Training is 4.23. The *p*-value is 0.000, which is less than 0.05, therefore indicating that there is a significant difference in SNS Training between entrepreneurs in treatment module SNS Training (M=4.43, SD = 0.341) and treatment module without SNS Training (M=0.200, SD=0.925). Hence, Hypothesis H_{01b} is rejected. This means that entrepreneurs who used SNS (Blog) obtained operational cost decrement compared to entrepreneurs who not used the SNS.

Conclusion

In conclusion, this research has shown that the use of the SNS (Blog) in business, would serve as a useful strategy to increase their sales volume. In terms of operating cost, finding showed that will reduce the cost and it is more suitable for the SMEs entrepreneurs that could help them to stable their business.

Therefore, through this research, hopefully as an alternative solution to improve the way there are doing the business in this digital era compared the traditional era that the entrepreneurs just waiting the customers at the business premise only. Concisely, this research provides timely answers for the MARA entrepreneurs to change or update the way there are doing business in this era to increase their business profit with less operating cost. Hopefully they will realize that they have to be where their customers are, and it is clear that their customers use social networks. At the same time, MARA entrepreneurs should know how to access the customers and potential customers and understand the market to choose the right platform or the online channel for reaching those potential customers.

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International Journal of Advancements in Research & Technology, Volume 1, Issue 5, October-2012
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