

*Full Length Research Paper*

## **Effectiveness of Social Media Efforts in Institution of Higher Learning**

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Based on the major objective of this study, which is to unravel the effectiveness of social media efforts in institution of higher learning; different independent variables were examined; which are: collaborative learning, marketing, information sharing, and social engagement. For the purpose of this study, quantitative analysis was employed which focused on survey; that is the use of questionnaire which were distributed to 200 students in one of the high-ranking University in Malaysia. The correlation analysis done through SPSS 20.0 showed positive relationship between the dependent variable (social media efforts) and independent variables (collaborative learning [ $r=0.823$  at significant level of 0.000], marketing [ $r=0.801$  at significant level of 0.000], information sharing [ $r=0.620$  at significant level of 0.000], and social engagement [ $0.531$  at significant level of 0.000]). Furthermore, as the linearity test showed positive relationship, also the regression analysis done supported all the four hypotheses, indicating that significance relationship exist between the dependent variable (social media efforts) and independent variables (collaborative learning [at significant level of 0.000], marketing [at significant level of 0.000], information sharing [at significant level of 0.010], and social engagement [at significant level of 0.008]). Therefore, showed the effectiveness of social media efforts in collaborative learning among students, marketing activities of the institution of the higher learning, information sharing among students and their lecturers, and social engagement among the students of the institution of higher learning in Malaysia.

**Keywords:** Social Media, Collaborative Learning, Marketing, Information Sharing, Social Engagement

## Introduction

### 1.1 Background

The world of communication has considerably changed in the past 25 years. The main media used for information dissemination before the advent of internet were known to be traditional media (i.e. radio, television, film, newspapers and magazines). Traditional media had a large influence on the ways of information flow and thus formed communities who share the same or similar understanding of the world (Matesic et al. 2010).

Today, however, the number of media channels of information sharing has increased. The increasing number of different media is associated with the advent of internet. The Internet as a marketing channel is interactive, accessible, ubiquitous, and integrates marketing communication with commercial transactions and service delivery (Jennifer Rowley, 2004). As new channels are springing up, information also is becoming closer to people in the society. Likewise, the rate at which people can get and

disseminate information is getting higher. Easy access to media gave rise to peer content production; through this, individuals with media interest can disseminate preferred content (Aris and Bughin, 2009).

According to Matesic, Vuckovic and Dovedan (2010) advent of social stream, both public and private one enhanced information transparency based on interaction and collaboration that are involved. Social media as new communication and collaboration channels has profoundly influenced on all structures of society: experts, individuals, scientists, public figures, institutions as well as companies. They are truly participatory media which allows for two-way communication, which certainly isn't a characteristic of traditional media. These media create communities or public that are critical and at the same time rational. Through the social media new communication-channels emerged to enhance marketing and public relations activities. However, the introduction of instant-messaging tools and e-mails increased the number of

Internet-users. This increase became larger when new media-channels like social media entered the Internet. Social-media as special forms of networked media are sets of applications, tools, and services which enables people to connect with each other online for the purpose of sharing and exchanging information (or knowledge) likewise to create their online-communities (Matesic, et al. 2010). This importance of social media shows its benefit in achieving effective communication with group of people that has same identity. This means its potential can be harnessed to create awareness or publicize to a particular group of people that have familiar characteristics (for example Facebook can be used to reach out to teenagers, LinkedIn can be used to reach out to those looking for jobs).

## 1.2 Problem Statement

Studies showed when social media lacks exciting and innovative applications or lacks relevant content or has low engagement can render social media

ineffective. Focusing on higher institution, Efthymios and Stagno (2013) identified the role and importance of social media on the choice of future students for a study and university in comparison with the traditional university marketing channels in the Netherlands. Survey was done on the sample size of 403 and data analysis was done through statistical program PASW version 18. The findings revealed that future students rank the social media last in a list of information channels which influenced their choice of a study and university. According to the author the possible reasons for these results are attributed to lack of relevant content. This is as a result of low engagement of such tools by universities as public relation and direct marketing tools. As most users of internet expect to see links with corporate blogs, discussion forums or social networking applications like Twitter, Facebook, YouTube, Flickr, Delicious, Digg on the web pages they visit; most of the universities don't provide online visitors with such options on their home pages likewise some universities limit their focus only on social networks such as Twitter and Facebook. Furthermore, other factors like lack of

exciting and innovative applications and lack of other forms of social media such as blogs, online communities, forums, as well as bulletin boards create a barrier to connect with future students. Thus, developing attractive social media applications as well as connecting with potential students posed major challenge for university marketers.

In addition, study by Hall (2014) on how higher education institutions in the University System of Georgia make use of social media, compared social media use among the different types of institutions (research, comprehensive, state college and state university) found that higher education institutions have good understanding of the importance of using social media, but many are not taking advantage of tools and strategies that can help them succeed. Indicating that inappropriate implementation of social media efforts can make organization to be prone to crisis. However, as media content is becoming wider accessible so also avenues for crisis is increasingly emanating. This is as easy access give chance to express dissatisfaction, hatred or disgust over certain issues, individual and organization. Odhiambo (2012) studied

Social Media as a tool of marketing and creating brand awareness, concluded that even though social media are becoming popular and effective marketing tools, it can pose a threat and opportunity to organizations as they can rapidly spread the views of dissatisfied customer's comments.

### **1.3 Objectives of the Study**

The objectives of this study is to investigate the effectiveness of social media effort in the institution of higher learning. Since this study's major focus is on institution of higher learning, this study aims to unravel the importance of social media on collaborative learning, information sharing, marketing, and social engagement in higher institutions.

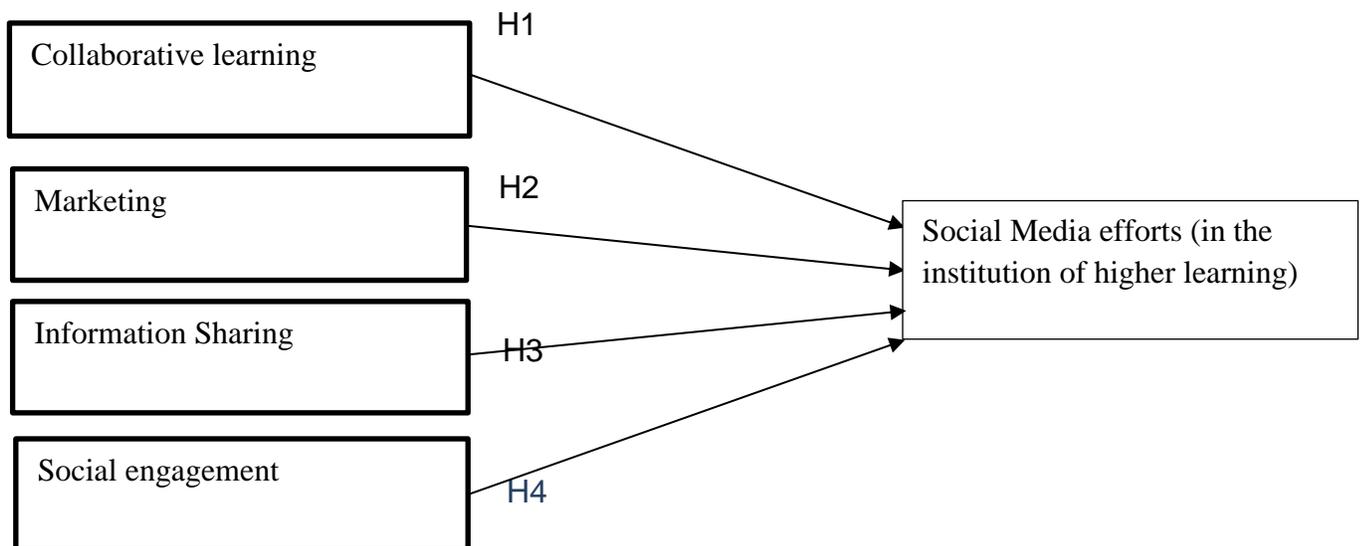
### **1.4 Significant of this Study**

This study will add to public relations and marketing literature, likewise, will help practitioners to know areas to channel social media tools.

The findings of this study can be harnessed by higher institutions, and some other organization management to gain more understanding on social media efforts.

This empirical analysis as well as this study's theoretical framework will give a background knowledge or review for other researchers that wants to undergo study in a related work.

## 1.5 Research Framework



## Literature Review

### 2.1 Introduction

Based on the objective of this study which is to investigate social media efforts in the institution of higher learning focusing on one of the highly rated institutions in Malaysia. The literature review discusses different

aspects of social media efforts based on past studies. Studies have revealed different importance of social media efforts in institution of higher learning, concluded that social media efforts in institution of higher learning is geared towards collaborative learning (VanDoorn

and Eklund 2013) information sharing (Foroughi, 2011; Reddy, 2014) marketing (Nazeer, 2017); Pradiptarini, 2011) as well as social engagement (Liu, 2010).

## **2.2 Literature Review on Social Media Efforts in the Institution of Higher Learning**

### **2.2.1 Collaborative Learning**

Yang (2003) studied the effects of social networks on students' performance; using data from a 40-student course on Advanced Management Information Systems (AMIS), empirical test was done on how social networks (friendly, advising, and adversarial) related to students' performance. Firstly, advising network variables (consist of relations by which individuals share resources like information, assistance, and guidance which relates with completion of their work) are positively related to student's performance both in the class and on the forum. Adversarial variables (referred to those relations that may involve negative exchanges, causing anger, emotional distress, or indifference) negatively correlated with almost all students'

performance (as they are detrimental to student performance).

Foroughi (2011) examined a research framework for evaluating the effectiveness of implementations of social media in higher education; indicated that many college campuses have begun to use Web.2.0 social media technologies like blogs, Facebook, Twitter, and YouTube to enhance information sharing and collaboration among faculty, administrators, and students. Further indicated that universities have started providing support and infrastructure in supporting social media initiatives, likewise social media tools are being used as part of course content and delivery, where students can use them for collaboration and group decision making on real-world projects.

Guy, (2012) examined the use of social media for academic practice, through the review of literature suggests that social media holds promise for academia, as reported that students have diverse beliefs, perceptions and experiences on social media technologies there is willingness among students to incorporate social media into their

learning experiences, also majority of faculty supported utilizing social media to enhance student engagement as well as provide course content in a more participatory and active ways.

VanDoorn and Eklund (2013) studied social media and the learning and teaching potential of symmetrical, synchronous communication by designing 10-item questionnaire and asking students to evaluate their experience after exposure to a course through Facebook. Results showed that social networking offers learners and teachers exciting opportunities to communicate, likewise Web 2.0 and its synchronous communication platforms provide new opportunity for teachers to deliver curriculum and facilitate learning. It also provides new avenues for students to engage and intensify learning, as students were able to chat in real-time with a teacher. Therefore, it is concluded that in the evolving, flexible-learning tertiary environment, effective and viable computer mediated communication (CMC) can be explored as an alternative to face-to-face teaching.

Henderson, Ilana and Beale (2013) examined social media for collaborative

learning; through literature review revealed that social media were utilized most effectively for learning purposes when pedagogical design considered: (1) how the media could extend learning by offering new opportunities like working with outside experts as well as use to receive timely feedback; (2) the need to carefully prepare students for collaborative use of social media like developing explicit processes in supporting and educating students to work together collaboratively.

Alfaki and Alharthy (2014) examined the use of social networks to promote learner's language, based on experimental research method where data were collected through pre- and -post tests, through randomly selection two groups of 80 subjects were selected and data analyzed through SPSS, findings revealed a remarkable progress of the experimental group that make use of social networks compared to the control group, that did not use these social networks. The study further found that learning through social networks is more effective compared to traditional learning that has no access to social networks, and collaboration is considered useful learning strategy to

improve learners' second/foreign language.

Gerald C. and Kristen M., (2014) studied characterization of social networks for effective communication and collaboration in computing education, the paper discusses author's experience with different social networking sites (Twitter, Google+ and Facebook) to engage learners in various computer science courses at Miami University. The study concluded that one emerging form of communication that has gained widespread recreational use is social networking like Facebook and LinkedIn. As the popularity of social networking is continually increasing through social media, social networking had gone beyond sharing mundane details of user's personal life to achieving communication and collaboration in educational and corporate settings. Increasingly, social media are being used for daily communication within the workplace in order to assist in sharing expertise across the organization. The study further indicated that the major benefit of implementing social networking into the classroom settings was to allow students and project stakeholders to have fast access to

specific information. Findings showed that after having this access, students were able to leverage the knowledge and skills of their peers, therefore makes them to be more productive and more likely to improve on their academic performance.

Elham, Wafa and Al-Badi (2014) studied adoption of social networking in education, through a survey amongst Omani 106 students in different universities and other higher institutions, found that using Social networks tools by students allowed them to control their own learning environment likewise gave them chance to share their knowledge with other students in different ways like texting, voice, as well as video media. Furthermore, it was revealed that Web 2.0 tools, like Facebook, blogs, YouTube, as well as online courses gave students better learning opportunities to enhance their educational performance, thus students have preference in finding better ways of learning by changing their learning styles and connecting with an environment with more dynamic social potential rather than studying in isolated environments that provide traditional learning styles.

Nathara and Purayidathil (2015) examined social networks as a tool for education, concluded that social networking promises to be a powerful educational tool which allows students share information and collaborate with others as never before. Therefore suggested the need for school management or administrators to arrange some experts in the area of social networks to clear student doubts as well as equip them with the knowledge on ways of using social networks effectively for their learning activities. This will assist students save both their money and time when doing their interactions through the Internet compare to meetings in a particular place. Furthermore, when students do their exchange of papers as well as submit their projects and assignments through the Internet, they can save the printing cost. Thus, school administrators should encourage and educate students on how to go about use of social media for academic purpose.

Aysun and Sona (2017) examined the effects of social media use on collaborative learning, by making use of online questionnaire, data are collected from the students of one of the largest

university in Turkey. The results showed that perceived ease of use is a predictor of perceived usefulness and both of these have impact on the use of social media by students for educational purposes. Furthermore, the use of social media improves peer interactions and students course engagement, likewise improves students' interaction with members of faculty. Finally, peer interactions as well as course engagement have significant positive effect on collaborative learning.

Daisy and Naatus (2017) focused on experiential learning in digital marketing: a library social media takeover, indicated that students that involved in the library social media project were able to add to their digital marketing skills which would not have been possible through traditional class work. Also, the development of social media library assists the school to forge collaborative relationships between students and academic departments as well as improve the quality as well as frequency of posting on social media, increases students involvement in library and alleviating job strains on professional librarians.

Chawinga (2017) investigated ways social media facilitates teaching and learning, data were collected through analysis of blog and Twitter posts by students, also data were collected through a questionnaire which was sent to 64 students to know their perception on the use of blogs and Twitter in a classroom environment. Findings showed that if appropriately deployed, blogs and Twitter are catalysts for the much hyped learner-centred approach to teaching because with the use of these technologies students were able to share and discussed course materials, posted their course reflections as well as interacted amongst themselves and with their lecturer 24/7.

### 2.2.2 Marketing

Melewar Nichola Smith, (2003) study examines the implication that an internet presence can bring to firm's goals marketing strategies. It is observed that rapid internet adoption as a commercial channel has generated in more innovative ways of marketing to consumers in computer-mediated environment. The use of internet facilitates

organization potential to reach target-audiences in more efficient way. With the use of demographic-data and previous interactions history, companies can get more accurate customers profile. In addition, internet by nature, promotes a globally standard-approach to promotion and advertising, this allows companies to realized lost-economies as well as generates cohesive product-positioning globally.

Jennifer Rowley, (2004) proposed a model for an online brand development. Examined the nature of brands and branding which leads to consideration of some of the unique aspects of online-branding. Since Web-pages have significantly played an important role in online-branding, it can help to communicate brand messages and values. **Branding** is an important tool in building customer confidence and familiarity. Rowley suggests that managers should take a systematic approach in developing brands in the online market place by designing Web-site to communicate and reinforce brand. Effective Web-site

design is crucial in terms of its uses; likewise central-focus in the branding process should be messages and communication. Brand builder task is to tease out and communicate brand values that take the organization exactly where it wants to go, at the same time building and acknowledging on the existing attribute, values, or personality-traits that existing users have in common with the organization.

Noel-Levitz, (2007) examines use of online media to build an e-recruitment. The study makes use of responses from a telephone-survey of 1,018 college-bound high school seniors. According to Noel-Levitz, like traditional recruitment programs, many e-recruitment also makes effort at gathering student information or data and then push them to apply. It further states that increased effort made by the institution at the initial application is complemented when effort is made at keeping collected data from these students on an accepted student site; these data can be used to continue communicating and making connections with these students as this will increase their chances of enrolling. Therefore, it was suggested in the study that

institution need to make it has an effort to harness that potential of online publicity not just to create awareness or published about a particular institution but also to educate admitted students on application process. This study indicates that constant effort needs to be made by organization to keep information pace with their target public, not only at an initial stage but on a continuous bases to sustain their relationship. Noel-Levitz, further states that this technique encourages the term “Friendonomics,” the use of advertising and marketing on social-networking sites by firms to promote their services and products; rather than just advertising, this marketing techniques will sustain interaction.

Study by Pradiptarini (2011) on measuring effectiveness of social media marketing and identifying social media target market, shows that generation Y (which also includes students) are most users of social media sites even though they might not be main target. It further indicated that social media marketing effectiveness is highly influenced by its messages/contents quality, the organization’s involvement, and its link with the other marketing platforms.

Odhiambo (2012) studied Social Media as a tool of marketing and creating brand awareness, concluded that social networks and the Web offered large and small companies new and unique opportunities to engage with their customers as well as learn more on their customers' needs in real time like never before. Thus, suggested that the peer group online social network effect can potentially influence purchase decisions based on its viral effect.

Thoene (2012) examined the effect of social media, focusing on Twitter and Facebook on the purchasing behavior of college students by testing correlations between recommendation on social media and consumption patterns. Result revealed that both Twitter and Facebook were being used to get sales promotions and information by students. Further, it revealed that gender has significant impact on both social networking sites; and the higher the frequency of social media usage the more likely students are to shop at their choice of business

Akyol (2013) studies Social Media and Marketing: Viral Marketing, concluded that the way people used to communicate has completely changed

and now easier for consumers to share their experiences about brands, products and services through internet. Today, compliance with technology and marketing approaches will help organizations to engage in efficient marketing activities.

Study done by Ghulam (2014) on Consumer's Behavior and Effectiveness of Social Media, using questionnaire survey on sample of 1000 young consumers between age group of 18-50 who make use of social media, revealed that social media has a significant impact on consumption behavior in Pakistan. This is as respondents indicated that they have preference for online transaction as it is convenience likewise the products are easily home delivery

Social media is considered as a tool for viral marketing, study was done by Siva and Kannan (2016) to investigate the effectiveness of viral marketing with major focus on educational institutions with samples of 140 respondents selected using a convenient sampling method. A questionnaire was prepared using five-point Likert scale method. The study revealed that viral marketing plays an important role in educational

institutions, this is viral marketing increase brand awareness as well as enhance brand image

Nazeer (2017) study was to find out the attitude and behavior change among university students of Lahore based on advertisements on social media through KAP survey using questionnaire for data collection and stratified random sampling as technique, findings showed that user's exposure to social media advertisements leads them to change in attitude and behavior within the age group (26-35 y); this is as the results revealed correlation between media exposure and attitude of the media user. Furthermore, results also showed that male students are more affected by exposure to social media ads compared to female students.

### 2.2.3 Information Sharing

According to Matesic, Vuckovic, and Dovedan (2010) Social media is a new communication and collaboration channel which has profoundly influenced on all structures of society. Further explained that social media offer

participatory avenue which allows for two-way communication, that the traditional media does not possess. Their study indicates that social media as a new communication-channels emerged to enhance marketing and public relations activities; likewise its uses enable people to connect with each other online for the purpose of sharing and exchanging information (or knowledge) likewise to create their online-communities, which give avenue to reach people with certain age group, or particular interest.

Baruah (2012) examined the effectiveness of Social Media as a tool communication and its potential for technology enabled connections, indicates that social media like twitter, Facebook, Skype, orkut, MySpace, and others, are used extensively for communication purpose and one significant advantages of the use of social media is the online sharing of knowledge and information among the various groups of people. This online sharing of information also promotes the increase in the communication skills among the people especially among the students/learners in educational

institutions. Online technology has not only mediated communication in different ways, but has also changed the ways of communication. Thus, Social media have the potential of fundamentally changing the character of individual social lives, at both interpersonal and community level.

Hussein (2013) study the effectiveness of using social communications Networks in Mathematics teachers professional development, indicated that the social networking has the strongest impact on the growth of the users, further stated that the use of information technology aid easy information transfer likewise can be harnessed in educational system.

Alassiri, Muda and Ghazali (2014) studies usage of social networking sites and technological impact on the interaction-enabling features, indicated that social networking site has become a crucial platform for communication for information sharing, image posting and socializing with others which are appreciated and used among students, organizations and government to provide efficient and cheap service. Furthermore, social networking sites allow users to interact conveniently with millions of other users instantaneously. The

technological features of online networking site support information sharing, posting of images and allow users to socialize with other users who are at distant locations.

Reddy, (2014) studied the influence of social media on international students' choice of university and course; the samples are 167, international students responded to the survey questionnaire based on dichotomous; demographic; multiple choice; rating scale and open-ended questions. The results showed active social media participation among international students, likewise revealed the importance of social media as it influences international students' decisions on course as well as university selection. Likewise support, the importance of social media in meeting students information needs.

Knight-McCord, et al. (2016) investigated what social media sites are mostly used for by college students, through survey on 363 students, revealed that 76% of students make use of social networking sites for 1-10 hours daily and 80% indicated they use the sites more on the weekend. Findings further showed that Students are most likely to use social

networking sites that allowed them to post videos and pictures and they are least likely to use social networking sites that allow them to develop a professional network or post media content into organized categories.

#### 2.2.4 Social Engagement

In a survey by Reuben, (2008) on the use of social media in higher education in the study, 148 colleges and universities responded to the survey. The study revealed that social media are prominently used among colleges and the university that was surveyed, as it is been used to reach their target audiences; out of the 148 surveyed, just over half (that is 53.79 percent) of the college/university were reportedly having an official Facebook-Page for their campus, likewise 20 of them have developed a custom application for Facebook. Findings shows that most colleges and University surveyed were using the official Facebook page as a tool to communicate with current-students,

to reach out to alumni, and for recruitment. This study indicates the impact of social media on publicity in University and Colleges.

Liu, (2010) examined social media tools as a learning resource; random sampling was used for data collection through an online survey with 221 students. The results shows that among students three top-used social media tools are Facebook, Wikipedia and YouTube; and the major reasons for the use of social media tools are for social engagement, direction communication, fast feedback, and building relationship. Thus, suggested educational implications of some of these tools as a valuable resource for learning and teaching.

Efthymios and Stagno (2013) identified the role and importance of social media on the choice of future students for a study and university in comparison with the traditional university marketing channels in the Netherlands. Survey was done on the sample size of 403 and data analysis was done through statistical program PASW version 18. The study revealed that most social media applications users employed

the use of social media basically for social interaction and information seeking.

Asmaa (2014) examined the use of formative assessment and social media for effective learning, indicated that enhance effective learning environment support learning is very important and to make teaching and learning more student-oriented mediation of technology can be crucial, this is as educators can effectively use online social networking in supporting educational goals. Thus, to make it possible, schools embrace social media technology to increase student engagement and skill development when knowing how to use it properly. Furthermore, online collaboration on an assignment will allow students to share their knowledge with one another as well as build communication skills.

Hall, (2014) examined how higher education institutions utilize social media; using interviews and a content analysis indicated that as social media has gained popularity, higher education institutions have begun to develop social media platforms to interact with current and prospective students as well as alumni.

Mbodila, Ndebele, and Muhandji (2014) studied the effect of social media on student's engagement and collaboration in higher education, the study was done on students enrolled for 'Foundation Information Technology (FIT)' module at one South African University as they were exposed to the Facebook social network as a platform for different academic activities; through quantitative paradigm, a semi-structured questionnaire was administered to the students when the course started to unravel their familiarity with Facebook and to measure its impact at the end of the module. The results obtained revealed that the use of Facebook significantly increased impact on student's engagement and collaboration. Therefore suggested the need for universities to embrace the use of social media for learning and teaching.

Rajesh and Jithin (2015) examined the effectiveness of social media in education, revealed that social media is very useful tool in education purposes and beyond, this is as students can make use of social media for blogging services, interaction services, group services in their studies as well as make use Social

Media to search for colleges and career opportunities.

and data analysis. This research methodology also provides discussion on the rationale of alternatives, which include benefits and possible limitations of those alternatives.

## Research Methodology

### 3.1 Introduction

This research objective is to investigate the effectiveness of social media effort in the institution of higher learning. This chapter highlights the methodological framework which were used to achieve the research objectives. The main focus in this chapter is on the research method, research design, sampling techniques, data collection,

### 3.2 Research Hypotheses

Testing the effectiveness of social media efforts in the institution of higher learning, this proposed research will investigate:

H1: Significant relationship exists between the use of Social Media efforts and collaborative learning in the institution of higher learning.

H2. Significant relationship exists between Social Media efforts and marketing in the institution of higher learning.

H3. Significant relationship exists between the use of Social Media efforts and information sharing in the institution of higher learning.

H4. Significant relationship exists between Social Media efforts and social engagement in the institution of higher learning.

### 3.3 Research method

The study employed quantitative approach. The quantitative approach was done with the use of descriptive statistics done through SPSS 20.0. The descriptive analysis will be done on the close ended questions. Quantitative approach is statistical method employed to enhance easy interpretation of data. Also it is a reliable method employed to enhance concise analysis of the findings (Creswell, 2009).

Survey as a method that can be used to draw out responses from the respondents is employed in this study. To facilitate this, a well-structured questionnaire was designed and given to Students in one of high ranking private University in Malaysia to know their view about the effectiveness of social media efforts in the institution.

### 3.4 Research Design

Survey as a method of drawing out responses through questionnaire is used in this study. The questionnaire

were distributed to Students of one of the high ranking private University in Malaysia. In order to have valid and reliable result the questions are in-depth, and it will guide to reach a valid and reliable conclusion. Creswell (2009) indicates survey method as an approach that provides numeric description of trends, opinions or fact of a population by studying a sample of that population. Through the approach the generalization and the interpretation of the result was done based on the analysis of responses gathered from the students.

Questionnaire survey is the tool used for this research, this is as it is believed to suit this research. Questionnaire was chosen because of its advantage of attracting quick data collection at a low cost. According to Blaxter, Hughes and Tight (2010) questionnaire survey have given various advantages, which include;

- Questions are designed to be unbiased and impartial.
- It is suitable for large-size data representation

- Less expensive
- Provide high anonymity

Based on the study 200 questionnaire were designed and distributed to respondents. The questionnaire was designed in a way that will be easily understood by the respondents. The questionnaire is divided into different sections. The first part contained demographic question like gender, and level of education, which options are given in Nominal, and Rating form. The second part in the questionnaire focused on the effectiveness of social media efforts in institution of higher learning, the questions in this part are in Likert-scale form. The Likert-scale questions contained different options which are: SA-Strongly Agreed, A-Agreed, D-Disagreed, SD-Strongly Disagreed. This is designed to measure the level of agreement and disagreement in which respondents have toward a particular question in the questionnaire. For example, respondents that indicate “strongly agreed” toward a question shows his or her strong opinion on such

question compare to respondent that just indicate ‘agreed’.

However, survey has limitation, which includes; the issues of accuracy and truthfulness, breadth of data rather than depth, focus on snapshots of points rather than underlying processes. However, purposive sampling employed is a good technique to achieve reliability in the research findings.

### 3.5 Sampling and Population

The sample Size is 200 students from one of the high ranking university in Malaysia. Furthermore, purposive sampling method is employed. According to Oliver and Jupp (2006) Purposive sampling is used in cases where the specialty of an authority has the chance to be selected, this creates room for more representative sample that can bring more accurate findings than by using other probability sampling methods. Since this study majorly focused on institution of higher learning, students were majorly focused to

provide reliable information needed to achieve valid report.

### 3.6 Data Collection

The Data collected was done with the use of questionnaires with choice options in Likert-scale. Data collection will be done by distributing questionnaire to 200 students in the focused university. As survey approach was employed in this study, the face to face contact with the respondents allowed respondents to ask question to seek further information which is crucial for valid and reliable report. This survey method is suitable to answer the questions of this study, as it allowed respondents to respond to the structured questions (in the questionnaire) which will then be analyzed to reveal the findings of effectiveness of social media effort in the institution of higher learning (Descombe, 2010).

### 3.7 Data Analysis

Based on the quantitative approach employed, primary analysis was

done on the collected data with the use of SPSS 20.0. The quantitative analysis has enormous advantages, which include its capacity to provide solid foundation for analysis and description (Descombe, 2010). Quantitative analysis also indicates that this type of analysis provides an effective way of organizing numerical data and communicating the research results to others. This benefits means quantitative analysis will be very suitable for the achievement of the research objectives.

### 3.8 Ethics

The research was conducted and planned to be quantitative and reliable. To facilitate ethics before involving in the research, a proposal was written which was approved by the supervisor. In the course of the research, the Market Research Society Code of Ethics and Guidelines was strictly adhered. Those that participated in this research, their consent were sought likewise they were informed about the purpose of the research, also

participation was voluntary. The Data analysis was conducted with great fairness, neutrality, honesty, integrity and impartiality. Also the secondary data used were cited and they were from the right sources. Also Harvard referencing and citation was employed in the report.

## DATA ANALYSIS

### 4.1 Introduction

Based on this study which is to investigate the effectiveness of Social Media efforts in institution of higher learning, quantitative analysis was done with the use of SPSS. For the purpose of this study 200 questionnaires are distributed to students in one of the highly ranked university in Malaysia. This chapter represents the analysis of questionnaire gotten from 200 respondents. The data analysis was done through SPSS Version 20.0 program, otherwise called Statistical Package for Society Science. The data were put into the SPSS tool which was

used for different tests, including normality test, reliability test, as well as linearity test. Furthermore, in this chapter analysis were done on the descriptive analysis, correlation, and regression analysis. The analysis revealed the findings of the research hypothesis which are:

H1: Significant relationship exists between the use of Social Media efforts and collaborative learning in the institution of higher learning.

H2. Significant relationship exists between Social Media efforts and marketing in the institution of higher learning.

H3. Significant relationship exists between the use of Social Media efforts and information sharing in the institution of higher learning.

H4. Significant relationship exists between Social Media efforts and social engagement in the institution of higher learning.

## 4.2 Data Analysis

### 4.2.1 Demographic Characteristics

#### Statistics

		Gender	Age	Marital Status	Ethnic Group
N	Valid	200	200	200	200
	Missing	0	0	0	0
Mean		1.5100	2.2800	1.5350	2.1950
Median		2.0000	2.0000	2.0000	2.0000
Mode		2.00	2.00	2.00	2.00
Std. Deviation		.50115	.77109	.51974	.99596
Variance		.251	.595	.270	.992
Minimum		1.00	1.00	1.00	1.00
Maximum		2.00	4.00	3.00	4.00

**Table 4.1: Demographic Statistics**

The table 4.1 showed the demographic statistics which revealed the means, median, mode, standard deviation, variance, minimum and maximum. As showed through the table, the demographic statistic showed the data collected from 200 participants who are students in one of the high ranking private university in Malaysia. The table revealed the analysis of the data

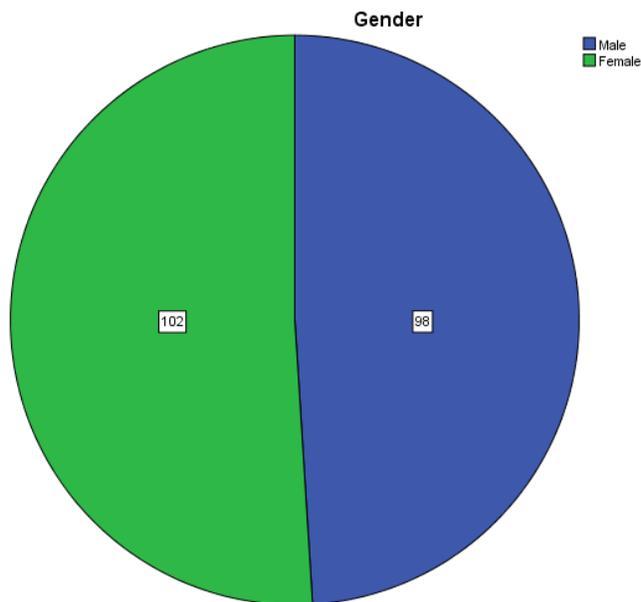
collected through questionnaire instrument. As showed in the above table, analysis showed 0 in the missing column, thus, indicate that there was no missing data in the data gathering process. The analysis showed the demographic data for the gender, age, marital status, and ethnic group of the respondents.

4.2.1.1 Gender

**Gender**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	98	42.6	49.0	49.0
	Female	102	44.3	51.0	100.0
	Total	200	87.0	100.0	
Total		230	100.0		

**Table 4.2: Gender**



**Figure 4.1: Gender**

Table 4.2 and figure 4.1 shows the respondent gender. It shows that out of 200 participants in this study, 51% of the students were female while 49% of the students were male. Hence showed that there were more female representation in this study compared to male.

#### 4.2.1.2 Age

##### Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Below 20	26	11.3	13.0	13.0
	21-30	105	45.7	52.5	65.5
	31-40	56	24.3	28.0	93.5
	Above 40	13	5.7	6.5	100.0
	Total	200	87.0	100.0	
Total		230	100.0		

**Table 4.3: Age**

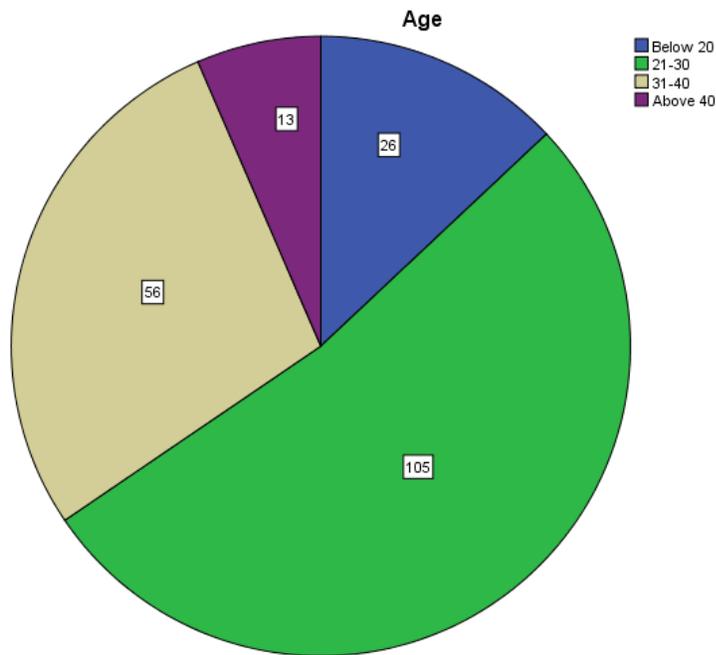


Figure 4.2: Age

Table 4.3 and figure 4.2 showed the age of the respondents who participated in this study. The analysis which was done with the use of SPSS revealed that respondents below the age of 20 years were 13% while those within the age range of 21-30 were 52.5%. In addition, the respondents within the age level 31-40 year constituted 28% of the respondents while respondents who are above 40 years of age constituted 6.5% of the respondents

#### 4.2.1.3 Ethnic Group

##### Ethnic Group

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Chinese	60	26.1	30.0	30.0
Malay	64	27.8	32.0	62.0
Indian	53	23.0	26.5	88.5
Others	23	10.0	11.5	100.0

Total	200	87.0	100.0	
Total	230	100.0		

Table 4.4: Ethnic Group

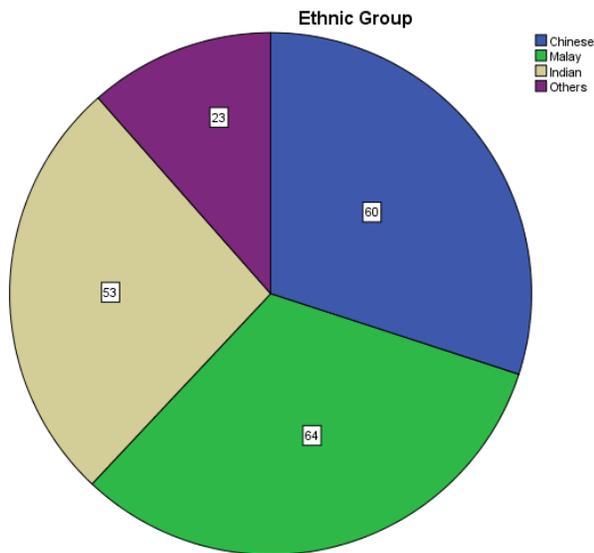


Figure 4.3: Ethnic Group

Table 4.4 and figure 4.3 shows the ethnic group that the respondents belong to, it showed that 30% of the respondents were Chinese, while 32% of the respondents were Malay. Likewise, the Indians constituted 26.5% of the respondents, this followed by others who belong to various ethnic groups; they constituted 11.5% of the respondents.

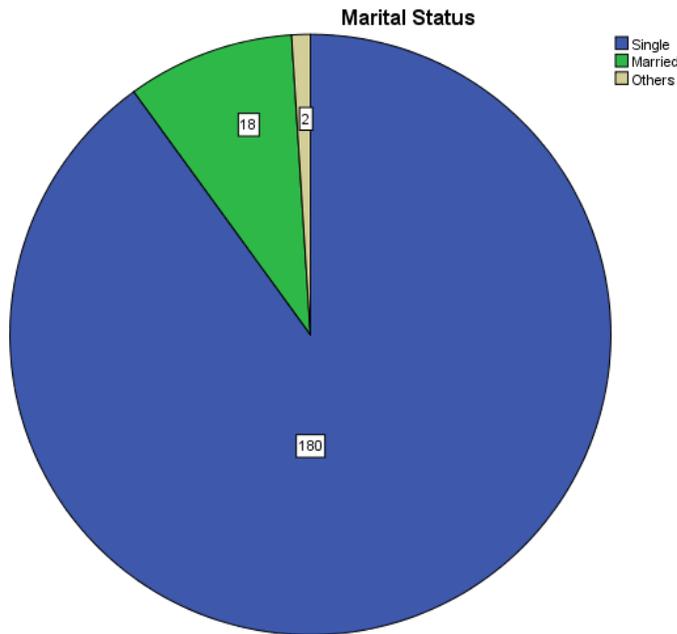
#### 4.2.1.4 Marital Status

##### Marital Status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	180	78.3	90.0	90.0
	Married	18	7.8	9.0	99.0
	Others	2	.9	1.0	100.0

Total	200	87.0	100.0	
Total	230	100.0		

**Table 4.5: Marital Status**



**Figure 4.4: Marital Status**

Table 4.5 and figure 4.4 showed the Marital status of 200 respondents who participated in this study. As revealed through the above table, analysis shows that those respondents who are single are 90% and those respondents who are married are 9% of the respondents while others who neither married or single constituted just 1% of the respondents.

### 4.2.2 Analysis of the Tests

#### 4.2.2.1 Reliability Test

Variables	Cronbach Alpha Value	Number of Items
-----------	----------------------	-----------------

Social Media Efforts	0.929	8
Collaborative Learning	0.895	8
Marketing	0.912	8
Information Sharing	0.927	8
Social engagement	0.919	8

**Table 4.6 Reliability Statistics**

Table 4.6 showed the reliability test, the analysis showed different variables and their Cronbach alpha value as well as the number of items. Findings showed that total items (total number of questions for all the variable) is 40 as there are 8 items for each variable. For the social media efforts, the Cronbach alpha value is 0.929, for the collaborative learning variable the Cronbach alpha value is 0.895 and for the marketing variable the Cronbach alpha value is 0.912, also for the information sharing variable the Cronbach alpha value is 0.927 while for the social engagement variable the Cronbach alpha value is 0.919. This showed that the results gotten for all the variables is above 0.7 which is considered to be the required value to show the reliability for each variable. Therefore, this results showed that all the variables used for the purpose of this study are considered to be reliable.

#### 4.2.2.2 Normality Test

##### Tests of Normality

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Social Media Efforts	.150	200	.000	.958	200	.000

a. Lilliefors Significance Correction

**Table 4.7 Test of Normality**

Table 4.7 showed the test of normality of 200 sample size. As revealed through the table above the Kolmogorov-Smirnova significance value was 0.000; therefore indicated that this result don't meet up with minimum requirement of 0.05 for this test. In addition, the

Shapiro-Wilk significance value based on the analysis showed 0.000. However, since this study involved 200 respondents, who were given questionnaires, Kolmogorov-Smirnova test is considered suitable, since there were 200 respondents. Also as Shapiro-Wilk test is suitable for studies with respondents below 50 samples. Nevertheless, based on the tests of normality that was conducted in this study, findings do not meet up with the required level, hence the need to conduct another test before proceeding to other tests. For this reason, Z-score was conducted in this study. The z-score formula is shown below:

$$Z\text{- Score} = \frac{\text{Statistics}}{\text{Standard Error}}$$

### Descriptives

		Statistic	Std. Error
Social Media	Mean	2.4713	.05399
Efforts	95% Confidence Interval for Mean	2.3648	
	Lower Bound	2.5777	
	Upper Bound		
	5% Trimmed Mean	2.4653	
	Median	2.5000	
	Variance	.583	
	Std. Deviation	.76356	
	Minimum	1.00	
	Maximum	4.50	
	Range	3.50	
	Interquartile Range	1.00	
	Skewness	-.144	.172

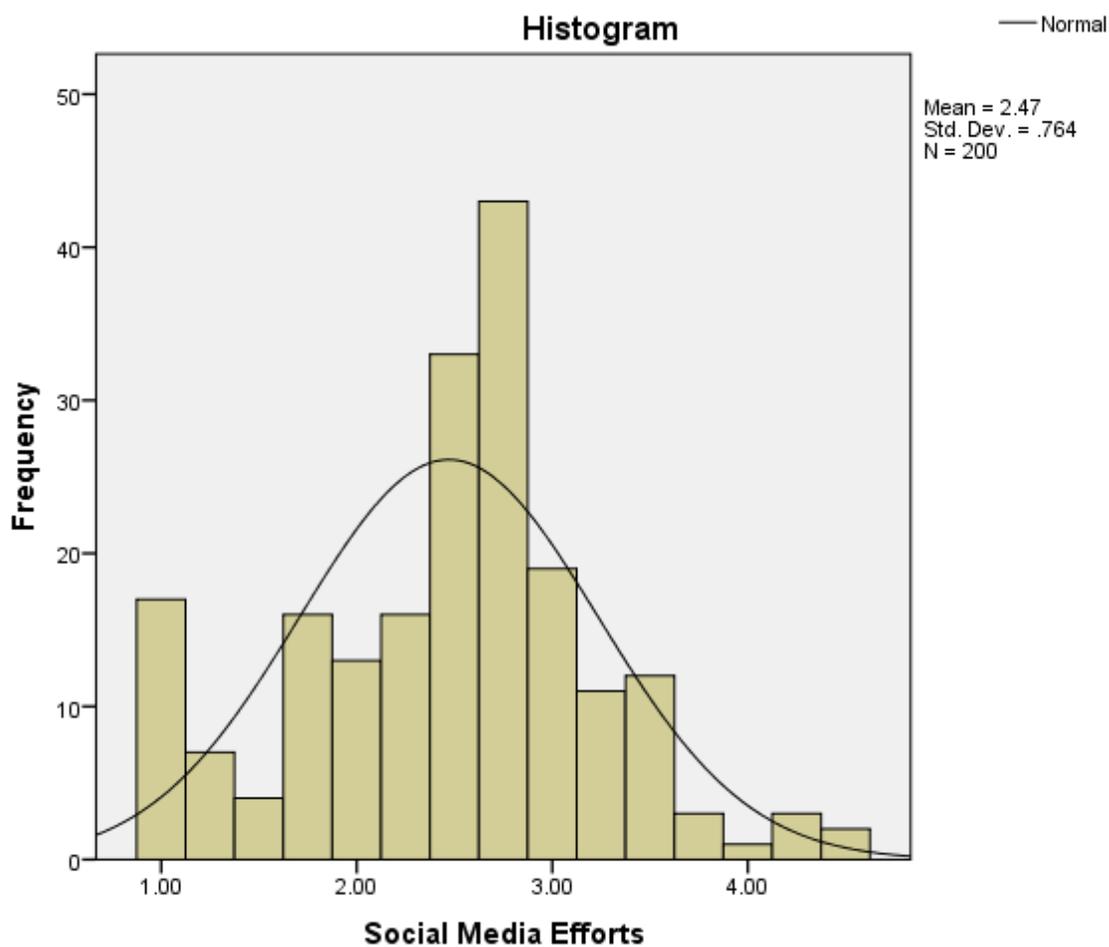
	Kurtosis	.008	.342
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**Table 4.8 Test of Normality**

Z-Score =  $-0.144/0.172$

Z-score= -0.84

By using the above formula, the findings showed that z-score equal to -0.84. Z-Score value have to be within the value of -3.29 and 3.29 ( $-3.29 < Z < 3.29$ ). As calculated below the Z- Score value of this data is -0.84, this implies that even though the data is not normally distributed, the non-normality assumption violation is not serious, therefore this research can be proceeded to the next stage.



**Figure 4.5 Histogram of Residual**

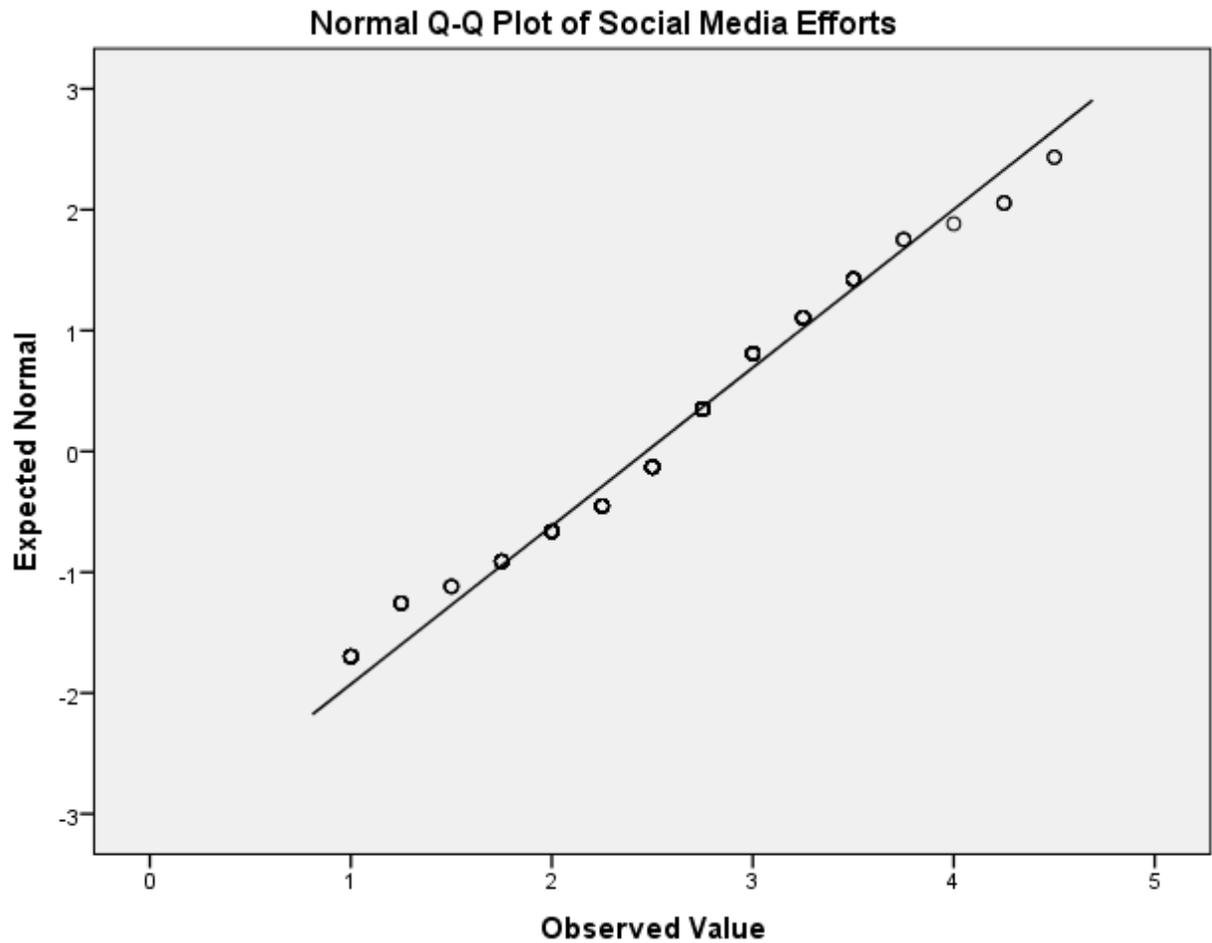


Figure 4.6: Normal Q-Q plot

The chart above showed the histogram of Residual functions used in measuring the normality according to the data that were gathered. As showed in figure 4.5, the histogram showed a bell shape. Thus, indicated that the Normal Q-Q plot that the results were issued out normally.

## 4.2.3 Linearity Test

### 4.2.3.1 Linearity between Social Media Efforts and Collaborative Learning

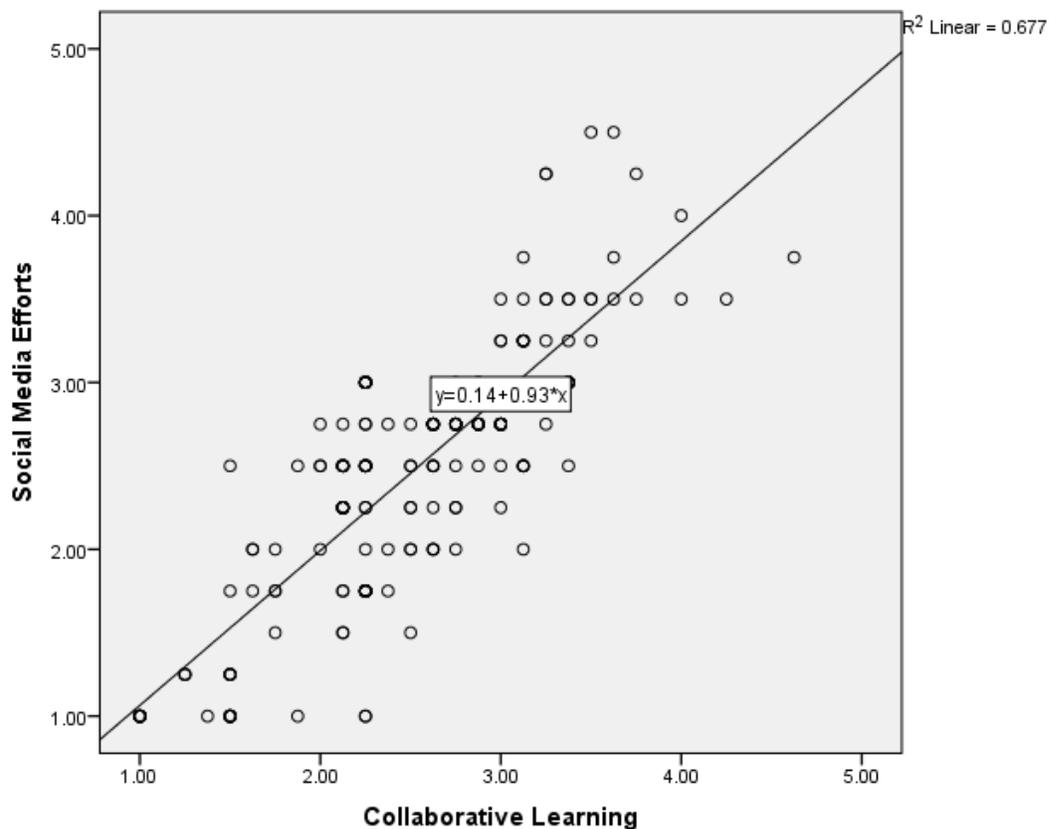


Figure 4.7: Relationship between Social Media Efforts and Collaborative Learning

Figure 4.7 showed the scatter plot graph which explained the relationship between collaborative learning and social media efforts of the higher institution. Social Media effort is a dependent variable laid on y-axis while collaborative learning is an independent variable was laid on x-axis. As shown in the graph above, R-square = 0.677, showing, there is 67.7% of the total variation in Dependent Variable (social media efforts) can be explained by Independent Variable (collaborative learning). Additionally, the slope = 0.93 means, for every 1 unit increase in Independent Variable (collaborative learning), there will be an increase by 0.93 in Dependent Variable (social media efforts). Thus, the analysis showed relationship between social media efforts and collaborative learning which is also considered to be positive, as showed that  $y = 0.14 + 0.93 * x$  based on the above linear equation.

#### 4.2.3.2 Linearity between Social Media Efforts and Marketing

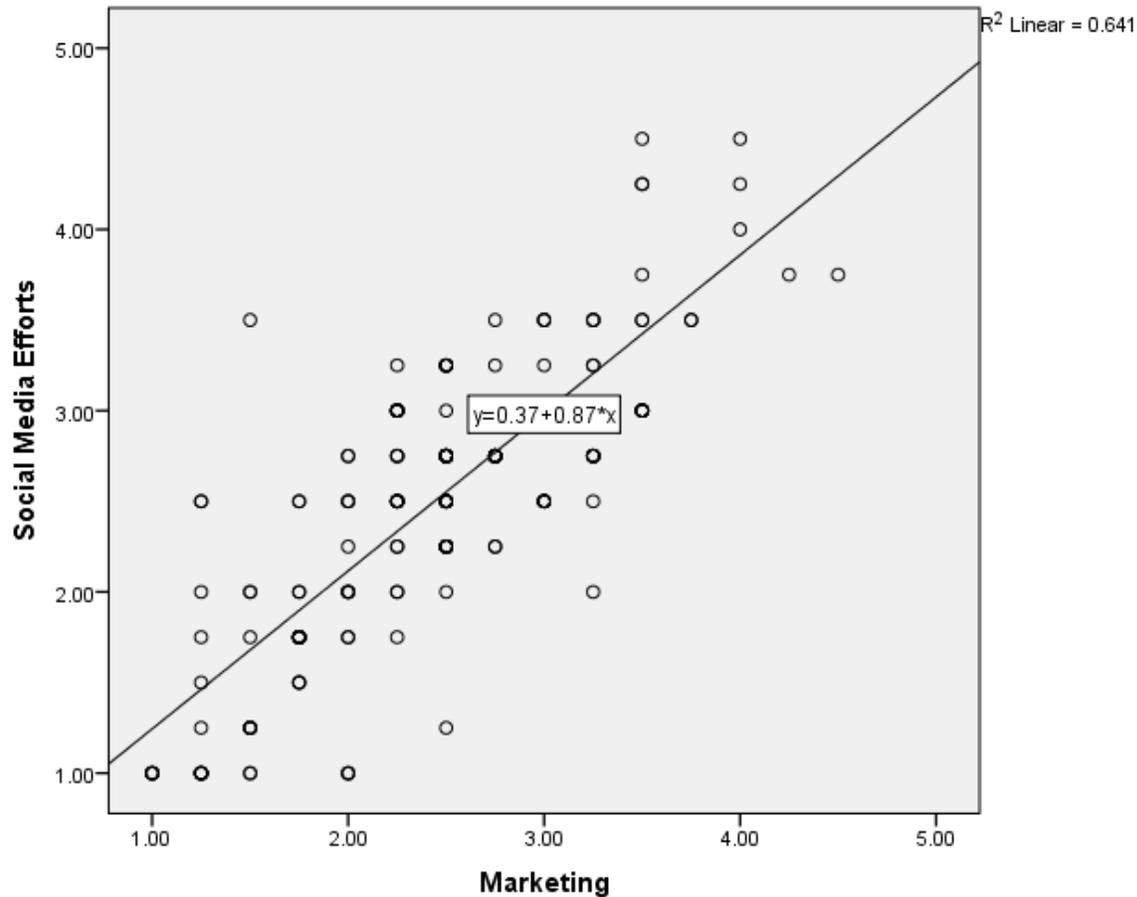


Figure 4.8: Relationship between Social Media Efforts and Marketing

Figure 4.8 showed the scatter plot graph which explained the relationship between marketing and social media efforts of the higher institution. Social Media efforts is dependent variable laid on y-axis while marketing is an independent variable was laid on x-axis. As shown in the graph above, R-square = 0.641, showing, there is 64.1% of the total variation in Dependent Variable (social media efforts) can be explained by Independent Variable (marketing). Additionally, the slope = 0.87 means, for every 1 unit increase in Independent Variable (marketing activities), there will be an increase by 0.87 in Dependent Variable (social media efforts). Thus, the analysis showed relationship

between social media efforts and marketing which is also considered to be positive, as showed that  $y = 0.37 + 0.87*x$  based on the above linear equation.

#### 4.2.3.3 Linearity between Social Media Efforts and Information Sharing

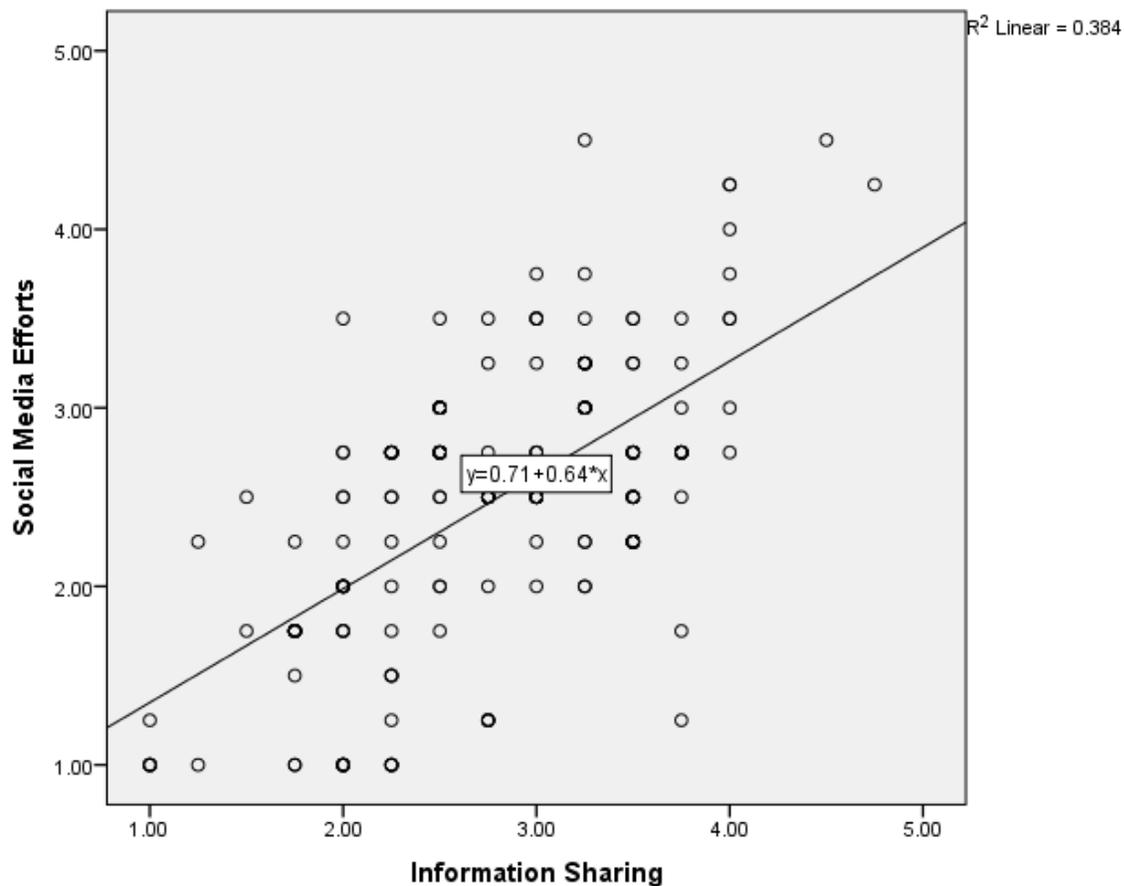


Figure 4.9: Relationship between Social Media Efforts and Information sharing

Figure 4.9 showed the scatter plot graph which explained the relationship between information sharing and social media efforts of the higher institution of learning. Social Media efforts is dependent variable laid on y-axis while information sharing is an independent variable was laid on x-axis. As shown in the graph above, R-square = 0.384, showing, there is 38.4% of the total variation in Dependent Variable (social media efforts) can be explained by Independent Variable (information sharing). Additionally, the slope = 0.64 means, for every 1 unit increase in Independent Variable (information sharing), there

will be an increase by 0.64 in Dependent Variable (social media efforts). Thus, the analysis showed relationship between social media efforts and information sharing in the institution of higher learning, which is also considered to be positive, as showed that  $y = 0.71 + 0.64*x$  based on the above linear equation.

#### 4.2.3.4 Linearity between Social Media Efforts and Social Engagement

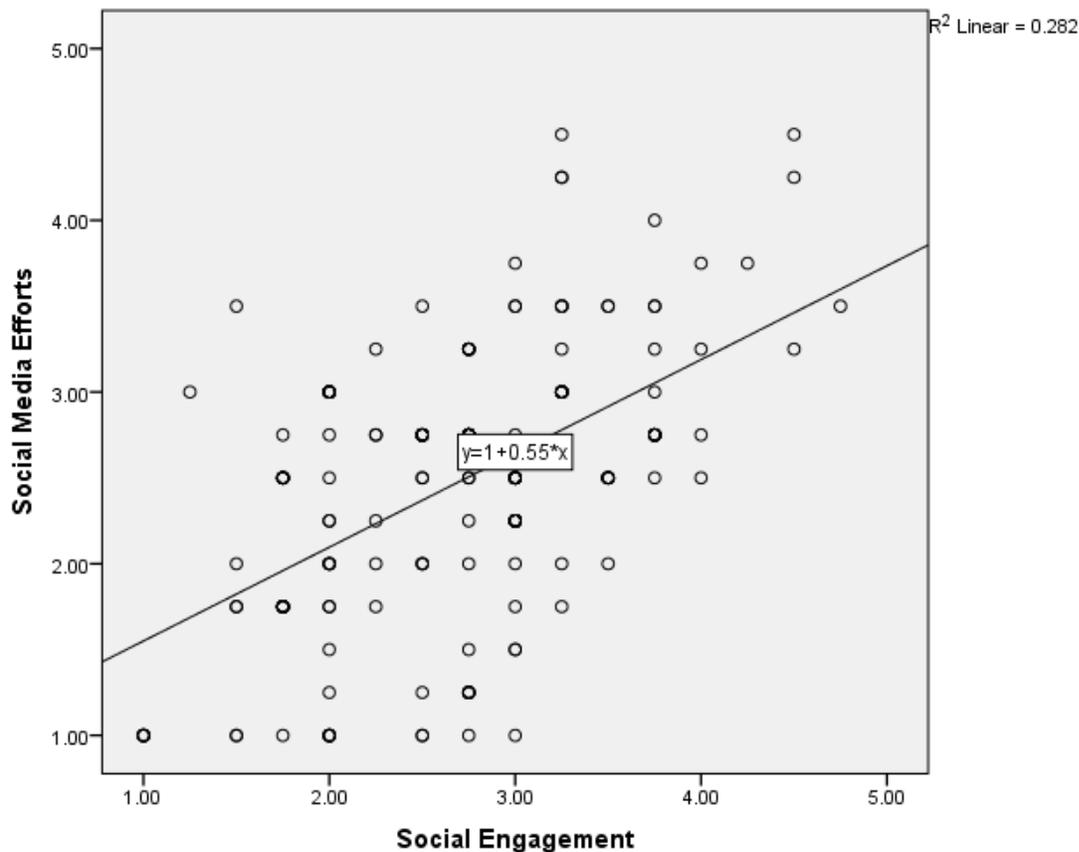


Figure 4.10: Relationship between Social Media Efforts and Social Engagement

Figure 4.10 showed the scatter plot graph which explained the relationship between social engagement and social media efforts of the higher institution of learning. Social Media efforts is dependent variable laid on y-axis while social engagement is an independent variable was laid on x-axis. As shown in the graph above, R-square = 0.282, showing, there is 28.2% of the total variation in Dependent Variable (social media efforts) can be explained by Independent Variable (social engagement). Additionally, the slope = 0.55

means, for every 1 unit increase in Independent Variable (social engagement), there will be an increase by 0.55 in Dependent Variable (social media efforts). Thus, the analysis showed relationship between social media efforts and social engagement in the institution of higher learning, which is also considered to be positive, as showed that  $y = 1 + 0.55*x$  based on the above linear equation.

#### 4.2.4 Pearson Correlation Analysis

##### Correlations

		Social Media Efforts	Collaborative Learning	Marketing	Information Sharing	Social Engagement
Social Media Efforts	Pearson Correlation	1	.823**	.801**	.620**	.531**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	200	200	200	200	200
Collaborative Learning	Pearson Correlation	.823**	1	.840**	.652**	.661**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	200	200	200	200	200
Marketing	Pearson Correlation	.801**	.840**	1	.673**	.630**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	200	200	200	200	200
Information Sharing	Pearson Correlation	.620**	.652**	.673**	1	.752**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	200	200	200	200	200
Social Engagement	Pearson Correlation	.531**	.661**	.630**	.752**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	200	200	200	200	200

N	200	200	200	200	200
---	-----	-----	-----	-----	-----

\*\* . Correlation is significant at the 0.01 level (2-tailed).

#### Table 4.9 Result of Pearson Correlations Analysis

Table 4.9 showed the correlation analysis done to know the relationships between the independent variables as well as dependent variables. The table showed findings gotten through Pearson Correlation data to unravel relationship between the collaborative learning and social media efforts, which showed the  $r= 0.823$ . With reference to Correlation Indices table interpretation, the relationship between collaborative learning and social media efforts is highly correlated. Also, the significance value equals 0.000; as this value is lower than 0.05; there is significance relationships between collaborative learning and social media efforts.

Additionally, the table showed findings gotten through Pearson Correlation data to unravel relationships between the marketing activities of the institution of higher learning and social media efforts of the institution, which showed the  $r= 0.801$ . With reference to Correlation Indices table interpretation, the relationship between marketing activities and social media efforts is highly correlated. Also, the significance value equals 0.000; as this value is lower than 0.05; there is significance relationships between marketing and social media efforts.

Furthermore, the table showed findings gotten through Pearson Correlation data to unravel relationships between information sharing and social media efforts, which showed the  $r= 0.620$ . With reference to Correlation Indices table interpretation, the relationship between information sharing and social media efforts is highly correlated. Also, the significance value equals 0.000; as this value is lower than 0.05; there is significance relationships between information sharing and social media efforts in the institution of higher learning.

Lastly, the table showed findings gotten through Pearson Correlation data to unravel relationships between the social engagement and social media efforts, which showed the  $r= 0.531$ . With reference to Correlation Indices table interpretation, the relationship between social engagement and social media efforts is moderately correlated. Also, the

significance value equals 0.000; as this value is lower than 0.05; there is significance relationships between social engagement and social media efforts in the institution of higher learning used to gather data in this study.

#### 4.2.5 Multiple Regression Analysis

##### 4.2.5.1 Model Summary

###### **Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.854 <sup>a</sup>	.730	.725	.40077	1.986

a. Predictors: (Constant), Social Engagement, Marketing, Information Sharing, Collaborative Learning

b. Dependent Variable: Social Media Efforts

**Table 4.10 Model Summary**

Table 4.10 showed the correlation coefficients (R) is 0.854, which can be explained as all the independent variable have relationships with each other. Additionally, this table interpreted the coefficient of determination (R-Square) that is 0.730. This indicated that the total of 73% of the variance of social media efforts can be described by Collaborative learning, Information Sharing, Marketing, and Social engagement. Therefore, the remaining of 27% of this variance that is within social media efforts cannot be explained based on independent variables. Also, the Durbin-Watson column showed the data result which revealed 1.986; showed that this result is within the required range of 1 - 3.

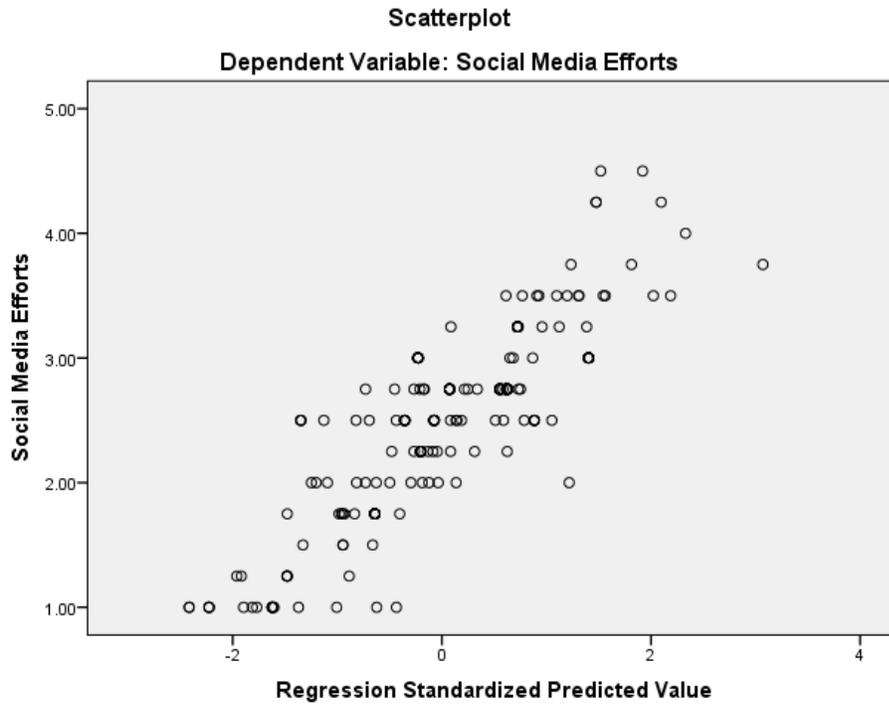


Figure 4.11 Scatter plot

Figure 4.11 showed the scatter plot which illustrates the relationship between the dependent variable and the independent variables that involved 200 respondents. This figure explained the relationship between regressions standardize residuals and regression standardize predicted-values.

4.2.5.2 Anova Model

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	84.702	4	21.176	131.840	.000 <sup>b</sup>
	Residual	31.320	195	.161		
	Total	116.022	199			

a. Dependent Variable: Social Media Efforts

b. Predictors: (Constant), Social Engagement, Marketing, Information Sharing, Collaborative Learning

**Table 4.11 Anova Model**

Table 4.11 revealed the significance value in this study, which is 0.000. Therefore, showed that it is accepted as the minimum required data level should be below 0.05. In addition, the table showed that the F-value is 131.840. Simultaneously, the regression relationship between social media efforts and the independent variable counting with collaborative learning, marketing, information sharing, and social engagement

#### 4.2.5.3 Coefficients

##### Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	.041	.121		.334	.739		
Collaborative Learning	.604	.082	.535	7.401	.000	.265	3.780
Marketing	.375	.078	.344	4.775	.000	.266	3.757
Information Sharing	.163	.063	.159	2.590	.010	.368	2.721
Social Engagement	-.164	.062	-.160	-2.659	.008	.384	2.607

a. Dependent Variable: Social Media Efforts

**Table 4.12 Coefficients of Multiple Linear regressions**

Table 4.12 showed the regression equation for this study, it revealed correlation between dependent-variable (social media efforts) and independent-variable

(collaborative learning, marketing, information sharing, and social engagement). The formula below was used for calculation:

$$BP=C + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4$$

$$SME = 0.041 + 0.604 CL + 0.375 M + 0.163 IS - 0.164 SE$$

Note

SME= Social Media Efforts

CL= Collaborative Learning

M= Marketing

IS = Information Sharing

SE = Social Engagement

In table 4.12, the B-values that are under unstandardized coefficients column is 0.041 when there are no further effect through factor. Thus indicated that social media efforts will increase by 0.604 when the collaborative learning increased by 1. In addition, the social media efforts will increase by 0.375 when marketing activities increased by 1. Also, the social media efforts will increase by 0.163 when the information sharing increased by 1. It therefore, showed the effectiveness of social media efforts in: collaborative learning among students, marketing activities of the institution of the higher learning, information sharing among students and their lecturers, and social engagement among the students.

### 4.3 Hypothesis Result

Hypotheses

Correlation Regression Results

H1: Significant relationship exist between collaborative learning and social media efforts	Significance of: 0.000	Significant of: 0.000	Accepted
	Coefficient of: 0.823	Gradient $\beta$ : 0.535	
	Significant	Significant	
H2: Significant relationship exist between marketing and social media efforts	Significance of: 0.000	Significant of: 0.000	Accepted
	Coefficient of: 0.801	Gradient $\beta$ : 0.344	
	Significant	Significant	
H3: Significant relationship exist between information sharing and social media efforts	Significance of: 0.000	Significant of: 0.010	Accepted
	Coefficient of: 0.620	Gradient $\beta$ : 0.159	
	Significant	Significant	
H4: Significant relationship exists between the social engagement and social media efforts	Significance of: 0.000	Significant of: 0.008	Accepted
	Coefficient of: 0.531	Gradient $\beta$ : -0.160	
	Significant	Significant	

**Table 4.13 Hypothesis Results**

#### 4.4 Conclusion

This chapter revealed the analysis of the findings done through the use of SPSS. Also, explained different tests and analyses which include: the reliability test, normality test, linearity test, descriptive analyses, multiple regression analyses as well as correlation analyses. These analyses and tests were with the aim of knowing the relationship between the independent-variable as well as dependent-variable. The regression analysis and the linearity test revealed relationship between dependent variable (Social media efforts) and independent variables (Collaborative learning, Information Sharing, Marketing, and Social engagement). Also, the correlation analysis showed positive relationship between the independent variables and the dependent variable. Thus, it revealed the effectiveness of social media efforts in: collaborative learning among students, marketing activities of the institution of higher learning, information sharing among students and their lecturers, and social engagement among the students of the institution of higher learning in Malaysia.

## Conclusion and Recommendation

### 5.1 Introduction

The overall findings is discussed in this chapter, this is discussed in reference to the objectives of this study. This chapter further discussed the implication of the study and limitations that was faced by the researcher while embarking on the study. This chapter also contained different recommendations for future research as well as the chapter conclusion.

### 5.2 Overall Findings Based on the Research

	Results		
Reliability Test	Variables	Cronbach Alpha Value	Number of Items
	Social Media Efforts	0.929 (Significant)	8
	Collaborative Learning	0.895 (Significant)	8
	Marketing	0.912 (Significant)	8

	Information Sharing	0.927 (Significant)	8
	Social engagement	0.919 (Significant)	8
Normality Test	p-value 0.000 (for Kolmogorov-Smirnov and Shapiro-Wilk. Not Normally distributed) Z Score= -0.84 (In the range of $\pm 3.29$ , significant)		
Linearity	Positive linearity		
Correlation	Positive Correlation		
Regression Analysis	<ul style="list-style-type: none"> <li>• Durbin-Watson: 1.986 (Between 1 to 3)</li> <li>• R-Square: .730 (73 percent)</li> <li>• Anova Significant Value: 0.000 (Ideal)</li> <li>• Multicollinearity Exist</li> <li>• p-value of collaborative learning: 0.000 (Hypothesis supported)</li> <li>• p-value of marketing 0.000 (Hypothesis supported)</li> <li>• p-value of information sharing : 0.010 (Hypothesis supported)</li> <li>• p-value of social engagement : 0.008 (Hypothesis supported)</li> </ul>		

**Table 4.14: Overall Findings**

### 5.3 Implication of the Study

The objective of this study is to investigate the effectiveness of social media efforts in institution of higher learning using one of the high-ranking universities in Malaysia as a case. Findings of this study showed the effectiveness of social media efforts in collaborative learning among students, marketing activities of the institution of higher learning, information sharing among students and their lecturers, and social engagement among the students of the institution of higher learning in Malaysia. This as the correlation analysis

done, indicates relationships between dependent variable social media efforts and independent variables: Collaborative Learning, Marketing, Information Sharing, and Social Engagement. The Pearson correlation done shows that among all the variable, collaborative learning has the highest value ( $r=0.823$ ); hence showed the importance of social media efforts in collaborative learning when properly harnessed. Additionally, the regression analysis done, supported all the hypotheses. As it supported the relationship between independent variables (Collaborative Learning,

Marketing, Information Sharing, and Social Engagement) and dependent variable (social media efforts).

Based on the correlation analysis which revealed positive relationship between collaborative learning and social media efforts (with  $r=0.823$  and significance of 0.000) and based on the regression analysis done which supported the hypothesis one: Significant relationship exist between collaborative learning and social media efforts (with significance level at 0.000); these findings is supported by previous studies findings. Foroughi (2011) examined a research framework for evaluating the effectiveness of implementations of social media in higher education; indicated that many college campuses have begun to use Web.2.0 social media technologies like blogs, Facebook, Twitter, and YouTube to enhance information sharing and collaboration among faculty, administrators, and students further indicated that universities have started providing support and infrastructure in supporting social media initiatives, likewise social media tools are being used as part of course content and delivery, where students can use them for collaboration

and group decision making on real-world projects. VanDoorn and Eklund (2013) studied social media and the learning and teaching potential of symmetrical, synchronous communication by designing 10-item questionnaire and asking students to evaluate their experience after exposure to a course through Facebook. Results showed that social networking offers learners and teachers exciting opportunities to communicate, likewise Web 2.0 and its synchronous communication platforms provide new opportunity for teachers to deliver curriculum and facilitate learning. Also provide new avenue for students to engage and intensify learning, as students were able to chat in real-time with a teacher. Therefore, concluded that in the evolving, flexible-learning tertiary environment, effective and viable computer mediated communication (CMC) can be explored as an alternative to face-to-face teaching. Henderson, Ilana and Beale (2013) examined social media for collaborative learning; through literature review revealed that social media were utilized most effectively for learning purposes when pedagogical design considered: (1) how the media could extend learning by offering new

opportunities like working with outside experts as well as use to receive timely feedback; (2) the need to carefully prepare students for collaborative use of social media like developing explicit processes in supporting and educating students to work together collaboratively

Furthermore, the correlation analysis also revealed positive relationship between marketing and social media efforts (with  $r=0.801$  and significance of 0.000); likewise the regression analysis done further supported the hypothesis two: Significant relationship exist between marketing and social media efforts (with significance level at 0.000); these findings is supported by previous studies findings. Odhiambo (2012) studied Social Media as a tool of marketing and creating brand awareness, concluded that social networks and the Web offered large and small companies new and unique opportunities to engage with their customers as well as learn more on their customers' needs in real time like never before. Thus, suggested that the peer group online social network effect can potentially influence purchase decisions based on its viral effect. Social media is considered as a tool for viral marketing,

study was done by Siva and Kannan (2016) to investigate the effectiveness of viral marketing with major focus on educational institutions with sample of 140 respondents selected using a convenient sampling method. A questionnaire was prepared using five-point Likert scale method. The study revealed that viral marketing plays an important role in educational institutions, this is viral marketing increase brand awareness as well as enhance brand image. Nazeer (2017) study was to find out the attitude and behavior change among university students of Lahore based on advertisements on social media through KAP survey using questionnaire for data collection and stratified random sampling as technique, findings showed that user's exposure to social media advertisements leads them to change in attitude and behavior within the age group (26-35 y); this is as the results revealed correlation between media exposure and attitude of the media user.

Additionally, the correlation analysis also revealed positive relationship between information sharing and social media efforts (with  $r=0.620$  and significance of 0.000); likewise the regression analysis

done further supported the hypothesis three: Significant relationship exists between information sharing and social media efforts (with significance level at 0.010); these findings is supported by previous studies findings. Baruah (2012) examined the effectiveness of Social Media as a tool communication and its potential for technology enabled connections, indicates that social media like twitter, Facebook, Skype, orkut, MySpace, and others, are used extensively for communication purpose and one significant advantage of the use of social media is the online sharing of knowledge and information among the various groups of people. This online sharing of information also promotes the increase in the communication skills among the people especially among the students/learners in educational institutions. Online technology has not only mediated communication in different ways, but has also changed the ways of communication. Thus, Social media has the potential of fundamentally changing the character of individual social lives, at both interpersonal and community level. Alassiri, Muda and Ghazali (2014) studies usage of social networking sites and technological impact on the

interaction-enabling features, indicated that social networking site has become a crucial platform for communication for information sharing, image posting and socializing with others which are appreciated and used among students, organizations and government to provide efficient and cheap service. Furthermore, social networking sites allow users to interact conveniently with millions of other users instantaneously. The technological features of online networking site support information sharing, posting of images and allow users to socialize with other users who are at distant location. Reddy, (2014) studied the influence of social media on international students' choice of university and course; the samples are 167 international students who responded to the survey questionnaire based on dichotomous; demographic; multiple choice; rating scale and open-ended questions. The results showed active social media participation among international students, likewise revealed the importance of social media as it influences international students' decisions on course as well as university selection. Likewise support, the

importance of social media in meeting students information needs.

Lastly, the correlation analysis also revealed positive relationship between social engagement and social media efforts (with  $r=0.531$  and significance of 0.000); likewise the regression analysis done further supported the hypothesis four: Significant relationship exists between social engagement and social media efforts (with significance level at 0.008); these findings are supported by previous studies findings. Efthymios and Stagno (2013) identified the role and importance of social media on the choice of future students for a study and university in comparison with the traditional university marketing channels in the Netherlands. Survey was done on the sample size of 403 and data analysis was done through statistical program PASW version 18. The study revealed that most social media applications users employed the use of social media basically for social interaction and information seeking. Asmaa (2014) examined the use of formative assessment and social media for effective learning, indicated that enhance effective learning environment support learning is very important and to make

teaching and learning more student-oriented mediation of technology can be crucial, this is as educators can effectively use online social networking in supporting educational goals. Thus, to make it possible, schools embrace social media technology to increase student engagement and skill development when knowing how to use it properly. Furthermore, online collaboration on an assignment will allow students to share their knowledge with one another as well as build communication skills. Liu, (2010) examined social media tools as a learning resource; random sampling was used for data collection through an online survey with 221 students. The results show that among students three top-used social media tools are Facebook, Wikipedia and YouTube; and the major reasons for the use of social media tools are for social engagement, direction communication, fast feedback, and building relationship. Thus, suggested educational implications of some of these tools as a valuable resource for learning and teaching.

#### **5.4 Limitation of the Study**

There are different limitations encountered while undergoing the study. Time duration constituted the major limitation. However, this was managed successfully, as the researcher designed a time table which was strictly adhered to. Additionally, based on the time limitation, this study makes use of 200 samples and focuses on a university in Malaysia, considering the larger number of universities in the country, this sample size may be considered to be small. However, the researcher was able to manage this by focusing on a high ranking university in Malaysia and respondents gotten in different faculties and departments in the higher institution. Lastly, this study makes use of survey approach through the use of questionnaire method. Mixed method which involved both quantitative and qualitative approaches would have been more assist to unravel in-depth responses which would have added to the study reliability. Nevertheless, this was managed by the researcher through the use of well-structured and reliable questionnaire.

### **5.5 Recommendations for future study**

With regards to the limitations mentioned above, future studies needs to allocate more time for this type of study. Additionally, future researchers can go to one particular higher institution and extend their research to various higher institutions in Malaysia and even beyond. This will allow them to enhance wider findings on effectiveness of social media efforts in institution of higher learning. Likewise, this study is a cross-sectional study, where data collections were done with the use of questionnaire, future studies can embark on longitudinal study, also future studies can employ the use of mixed approach which is crucial to achieve in-depth analysis through in-depth data, crucial to achieve more reliable findings. Also, future researchers can focus on other cases by engaging in extensive research on effectiveness of social media efforts in marketing activities in industries like manufacturing, construction as well as real estate; these are very important industries which are crucial for economic growth.

## 5.6 Conclusion

Based on the major objective of this study, which is to unravel the effectiveness of social media efforts in institution of higher learning; the correlation analysis done through SPSS 20.0 showed positive relationship between the dependent variable (social media efforts) and independent variables (collaborative learning [ $r=0.823$  at significant level of 0.000], marketing [ $r=0.801$  at significant level of 0.000], information sharing [ $r=0.620$  at significant level of 0.000], and social engagement [0.531 at significant level of 0.000]). Furthermore, as the linearity test showed positive relationship, also the regression analysis done supported all the four hypotheses, indicating that significance relationship exists between the dependent variable (social media efforts) and independent variables (collaborative learning [at significant level of 0.000], marketing [at significant level of 0.000], information sharing [at significant level of 0.010], and social engagement [at significant level of 0.008]). Therefore, showed the effectiveness of social media efforts in: collaborative learning among

students, marketing activities of the institution of higher learning, information sharing among students and their lecturers, and social engagement among the students of the institution of higher learning in Malaysia. However, based on the limitation encounter most especially as the researcher focused on one higher institution, future researchers can focus on different higher institutions.

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**Dear respondent:**

As part of my bachelor dissertation research, I am currently conducting a survey on the effectiveness of social media efforts in institutions of higher learning. Therefore, I sincerely invite you to participate in this research by completing the questionnaire attached with this letter.

The questionnaire will take approximately 5 to 10 minutes to complete. All the information provided through this survey would be handled with strict confidentiality. The outcome will not reveal any identity information of you as all the results from the research will be reported as statistical summaries only.

This part is to get the basic information of respondents.

Please tick (✓) appropriate box that applies to you.

A1. Gender:

- Male
- Female

A2. Age (years old):

**Appendix****Questionnaire****RESEARCH TITLE**

**Effectiveness of Social Media Efforts  
in Institution of Higher Learning**

- Below 21
- 22 -25
- 26 – 29
- Above 30

A3. Ethnic Group:

- Malay
- Chinese
- Indian
- Others, \_\_\_\_\_ please specify\_\_\_\_\_

A4. Marital Status:

- Single
- Married

**Section 2: Likert-Scale**

Below questions are to know the effectiveness of social media efforts in institution of higher learning. Kindly give out your response by ticking the most appealing options.

Dependent Variable-Social Media Efforts

No.	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
A1	I feel that using social media is easy.	1	2	3	4	5
A2	I feel that using social media is easy to incorporate in my classroom.	1	2	3	4	5
A3	I feel that using social media makes it easy to reach peers.	1	2	3	4	5
A4	I feel that using social media makes it easy to reach teachers.	1	2	3	4	5
A5	I believe that using social media is a useful learning tool.	1	2	3	4	5
A6	I feel that using social media will help me to learn more about my class.	1	2	3	4	5

A7	I believe that using social media enhanced my learning effectiveness.	1	2	3	4	5
A8	I believe that using social media will improve students' satisfaction with collaborative learning  (Adopted from: Aysun and Sona, 2017)	1	2	3	4	5

## Independent Variable - Collaborative learning

No.	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
B1	I felt that using social media for collaborative learning in the class was effective.	1	2	3	4	5
B2	I was able to develop research skills through peer collaboration using social media.	1	2	3	4	5
B3	I was able to develop new skills and knowledge from other members of the class.	1	2	3	4	5
B4	Collaborative learning experience in the social media environment is better than in a face-to-face learning environment.	1	2	3	4	5
B5	Using social media for educational purposes has favored my personal relationships with my peers and teachers.	1	2	3	4	5
B6	Using social media for educational purposes facilitates dialog with faculty members.	1	2	3	4	5
B7	Using social media for educational purposes facilitates dialog with peers.	1	2	3	4	5

B8	Using social media for educational purposes allows the exchange of information with peers.  (Adopted from: Aysun and Sona, 2017)	1	2	3	4	5
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### Independent Variable-Marketing

No.	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
C1	I am aware of my school advertisement on social media	1	2	3	4	5
C2	I was able to know my school through online publicity	1	2	3	4	5
C3	I have friends that knew my school through online publicity	1	2	3	4	5
C4	My school marketing effort is notable through social media	1	2	3	4	5
C5	My school online promotion effort is visible	1	2	3	4	5
C6	I do see my school advertisement through other social media platform	1	2	3	4	5
C7	My school online content is visible through social media like Facebook, MySpace Twitter, LinkedIn, Google+, YouTube, Instagram., and others	1	2	3	4	5

C8	My school marketing effort is effective online	1	2	3	4	5
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Independent Variable: Information Sharing

No.	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
D1	I constantly visit my school official website to know latest about the institution	1	2	3	4	5
D2	Most time I am notified of lectures through online	1	2	3	4	5
D3	I used my school online platform to get information from my colleagues	1	2	3	4	5
D4	I am constantly updated about my academics record through my school online platform	1	2	3	4	5
D5	Using social media for educational purposes facilitates interaction with faculty members.	1	2	3	4	5

D6	By using social media for educational purposes, my peer and faculty interactions made me feel valuable.	1	2	3	4	5
D7	By using social media for educational purposes, I felt that my opinions have been taken into account in the class.	1	2	3	4	5
D8	Using social media for educational purposes facilitates interaction with peers.  (Adopted from Aysun and Sona, 2017)	1	2	3	4	5

#### Independent-Social Engagement

No.	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
E1	My institution devote high time to facilitate social engagement among student through its social media platform	1	2	3	4	5
E2	I constantly visit my school online platform to render by feelings about the institution	1	2	3	4	5
E3	Most times I render my feelings through my school online platform I am quickly attended to	1	2	3	4	5
E4	I engaged in collective discussion through my school online platform	1	2	3	4	5
E5	My school online platform has helped to promote management-students relationships.	1	2	3	4	5

E6	Through online student engagement, my school was able to manage its crisis online.	1	2	3	4	5
E7	I was able to stay in touch with peers through online social engagement	1	2	3	4	5
E8	I was able to view social activities about my school online  (Adopted from Aysun and Sona, 2017; Efthymios and Stagno, 2013)	1	2	3	4	5