

## **An Exploratory Study Of Metrics Used In Measuring The Impacts Of Utilizing Social Networking Services On Business Performance**

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### **Abstract**

*The use of social networking services in business for marketing, interactions with customer, attracting potential customers and organizing social events are getting popularity and growing very fast. However, to date, there is a lack of research investigating the nature of the metrics that can be or commonly used to measure the impacts of social networking services on business; and the potential soft and hard business benefits derivable from social networking services. To address these, an exploratory research approach is adopted. Quantitative content analysis of more than 100 publicly available successful and failed social media advertising case studies are analyzed – to identify the actual and exact outcomes, benefits and business performance that can be realized from social networking services. Our analysis results show that out of the 108 companies succeeded in social media advertising: the top three industry advertising on Facebook are the food & beverage, fashion & accessories and the entertainment industries; 66% of them set their advertising targets that are based on the age, interest/like, gender and geographical location; companies that set their target audience have a higher chance of getting hard benefits from social media activities; and out of the 17 metrics identified, the top four common metrics used to measure the outcomes of social media on business is the number of page fans, fan's engagement/interaction, fan's impression and new business leads. The business performance such as sales and revenue are observed to be associated with these basic outcomes and benefits of the social media.*

*Keywords: social commerce, social networking services, social media, business benefits, quantitative content analysis, business impacts, metrics*

### **1. Introduction**

In the recent years, many firms start to use social networking services (SNS) to enhance their business [1]. In the 2012 IBM global CEO study, 15% of the 226 mid-market CEOs are currently using SNS as a major tool for engaging customers, however, 50% of them expect a major shift from the traditional media to social media for reaching customers in the next three to five years [2]. Interacting with customers on SNS's brand-page, in fact, can allow companies to identify the customers' products or services needs as in the case of AT&T [3], to increase traffic to online web-store as in the case of Addidas [4], to drive in-store sales as in the case of Diageo [5] and to build awareness of a new brand as in the case of Kia Soul [6]. In addition, some firms are using an SNS brand-page as a brand community where customers

and other people can share their interest, exchange information and knowledge about the brand to each other [7]. In brand community, companies can create more advantages, for instance, by maintaining the relationship among customers and potential customers, and providing incentives to fans/customers who support the brand community [8]. And, this would increase customers' loyalty [9]. Moreover, through the SNS brand-page, they can encourage and suggest each other in their purchasing decision process [10].

There could be various outcomes and business performance a business can expect and can obtain from utilizing this social networking service. The results can vary from one company to another. According to the 2012 Social Media Marketing Industry Report [11], survey with 3,813 participants mostly from the United States, found that one of the top 10 social media question marketers want answered is how to measure the effect of social media on their businesses. However, to date, there is a lack of research investigating the specific types of outcomes and business performance that a business can obtain from investing their resources in social networking services. This paper attempts to provide the answers to following research questions: (1) What is the nature of the common metrics used to measure the outcomes or impacts of social networking service on business and the business performance? (2) What are the potential soft and hard business benefits derivable from social networking services? To address these, quantitative content analysis of more than 100 publicly available successful and failed social media advertising case studies are analyzed – to identify the outcomes, benefits and business performance that can be realized from social networking services. This study uses the term social media and social networking services interchangeably.

The subsequent organization of this paper is as follows. Section 2 provides a literature review on the importance of social media for business, and companies that succeed and fail in social media marketing. Section 3 describes the research method and approach adopted. Section 4 presents the data analysis results from the secondary data source. Section 5 provides the contributions, limitations in this study, and future research directions.

## **2. Literature review**

### **2.1 The importance of social media for business in advertisement**

Consumer marketing companies are using social networks to reach their tailored demographics with highly personalized messages [12]. This is because these social network users have specific characteristics as such: over 80% of Twitter users and over 60% of Facebook users are over 25 years old [13]; and the fastest growing Facebook demographic is found to be those between 35-54 years old [14]. According to DigitalBuzzBlog [13], 30% of the 500M Facebook users are in the United States and 70% are outside the United States, and 40% of the 106M Twitter users are in the United States and 60% are outside the United States. These statistics show that the majority users of the top two social sites are over 25 years old and in the United States.

On the one hand, social media has potential to reach a large number of and specific group of potential customers at a relatively low budget; and is a possible good tool for building customer loyalty, improving customer experience with the product, and clarifying the negative news about enterprises during public relations crisis management [15]. On the other hand, social sites can also cause a viral and quick damage to a brand due to high information transfer rate and many-to-many communication, just like the case of Odeon (a cinema chain) and Ryanair Ltd. (an Irish airline) [16]. Besides, social media can require a lot

of time to make interactions and connections with others, and also need a lot of efforts to maintain an active presence in these sites [17].

Practically in the context of Facebook social site, there are three types of social commerce store as per Marsden [18]: (1) store type 1 – a ‘fake’ store (front) that does not support the actual business transactions in the social site – its objective is to drive traffic to a company’s e-commerce site or a web-store; (2) store type 2 – a fan-store that sells a limited number of fan-exclusive products – its objective is to turn fans into advocates, and (3) store type 3 – a full store that sell a full range of products – its objective is to replicate a web-store within Facebook. Examples of each social commerce store are given in Table 1 below. In this study, any of these three types of social commerce store is also applicable and relevant.

**Table 1. Examples of the three types of social commerce store**

Store name	Product type
Store Type 1: Fake/faux store	
ASOS ( <a href="http://www.facebook.com/ASOS">http://www.facebook.com/ASOS</a> )	Fashion clothing, Accessories
Nasty Gal ( <a href="http://www.facebook.com/NASTYGAL">http://www.facebook.com/NASTYGAL</a> )	Fashion clothing
ELLE Magazine (US) ( <a href="http://www.facebook.com/ellemagazine">http://www.facebook.com/ellemagazine</a> )	Fashion clothing, Accessories
Cabela's ( <a href="http://www.facebook.com/Cabelas">http://www.facebook.com/Cabelas</a> )	Outfitter of hunting, fishing, camping, outdoor gear
Pepsi ( <a href="http://www.facebook.com/pepsi">http://www.facebook.com/pepsi</a> )	Pepsi's brand product (e.g., T-Shirt, Souvenir)
Store Type 2 : Fan store	
Dove ( <a href="http://www.facebook.com/dove">http://www.facebook.com/dove</a> )	Beauty care product
Pantene North America ( <a href="http://www.facebook.com/PanteneNA">http://www.facebook.com/PanteneNA</a> )	Beauty care product
Pampers ( <a href="http://www.facebook.com/Pampers">http://www.facebook.com/Pampers</a> )	Baby and Kid product
1-800-Flowers.com ( <a href="http://www.facebook.com/1800flowers">http://www.facebook.com/1800flowers</a> )	Flower
Watson Malaysia ( <a href="http://www.facebook.com/watsonsmalaysia">http://www.facebook.com/watsonsmalaysia</a> )	Retailers
Store Type 3: Full store	
Chiasso ( <a href="https://www.facebook.com/chiassofans">https://www.facebook.com/chiassofans</a> )	Contemporary furniture and modern home accessories
Hallmark ( <a href="http://www.facebook.com/HALLMARK">http://www.facebook.com/HALLMARK</a> )	Greeting cards and ornaments
Gibson Guitar ( <a href="http://www.facebook.com/GibsonGuitar">http://www.facebook.com/GibsonGuitar</a> )	Gibson Guitar's brand product (Brand logo T-shirt, hat, souvenir, and etc.)
Belkin International (India) ( <a href="http://www.facebook.com/BelkinProductsIndia">http://www.facebook.com/BelkinProductsIndia</a> )	Computer and accessories
Walt Disney World ( <a href="http://www.facebook.com/WaltDisneyWorld">http://www.facebook.com/WaltDisneyWorld</a> )	Disney's brand product (Brand logo hat, bag, souvenir, and etc.)
Toll Booth Saddle Shop ( <a href="https://www.facebook.com//tollboothsaddleshop#!/tollboothsaddleshop?ref=ts">https://www.facebook.com//tollboothsaddleshop#!/tollboothsaddleshop?ref=ts</a> )	Horse supplies

## 2.2 Companies succeed and fail in social media marketing

As observed from the trade press, there are a lot of companies claiming to be successful in using the social media for marketing purposes. The companies succeed in using Twitter, as a marketing tool, are Dell ([dell.com/twitter](http://dell.com/twitter)), Zappos ([twitter.com/zappos](http://twitter.com/zappos)), and Comcast ([twitter.com/comcastcares](http://twitter.com/comcastcares)). On the other hand, companies succeed in using Facebook as a marketing tool are Addidas, Appleton Estate, Arizona Office of Tourism, ASB (bank), AT&T, Bob Evans Restaurant, Giantnerd, Kia Motors America, Momentum Pictures, All Nippon Airways, American Express, Canvas People (online canvas printing company), Lacoste (apparel company), Mazda, and Watsons (retail) [19]. However, there are also quite a lot of companies claiming to have failed or at least not fully satisfied with Facebook

advertising. These companies include: Pizza Delicious [20], General Motors [21], Tesla Motors, Netflix and Goldman Sachs [22].

These reported success and failed cases in using the social media for advertising indicate that different companies have different experiences and obtain different results from the use of social media in their businesses. In light of the mixed results, a thorough review and content analysis of the reported case studies (for both successful and failed cases) are required to: (1) identify the metrics used by the companies that succeeded in social media advertising to measure the impacts of the use of social media in businesses, and (2) fully understand the common metrics used to measure the success and failure in a social media advertising in businesses.

### 3. Research method

As research on social media impacts on business is in its infancy and almost no academic study has been conducted to understand this relevant practice issue, this study adopts an exploratory research approach. The level of analysis is the organization, and the unit of analysis is the organization's written story or report on its success or failure in its social media strategy. The secondary data of more than 100 publicly available successful and failed social media advertising case studies, which are readily and conveniently accessible, are carefully examined and investigated in this study.

Data collection – One hundred and eight success cases, from the trade press [16, 19, 23], and 18 failed cases, from the trade press [16, 21, 23], is analyzed in this study. These cases were published based on their social media activities that took place between year 2007 and 2011. The *identification/classification of success and failure cases* is based on the contextual descriptions of the respective case on the impacts of the social media it uses for business – as whether it brings positive or negative impact, outcome or performance. Among the success cases, 104 companies are using the Facebook social site whereas only four cases are using either the Twitter or YouTube as their social site. On the other hand, 10 of the failed cases are using Facebook and eight cases are using either the Twitter or blog as their social media for advertising.

Data analysis – Two phases of data analysis are conducted. The first phase is the within-case analysis, where the content analysis method is used to analyze the experiences of 126 companies succeeded or failed in social media advertising, which were written and published in the form of textual case studies. The unit of analysis is the metrics used by these companies in measuring the impacts or outcomes of utilizing social media on business. In particular, this study applies the quantitative type of content analysis, whereby the 'raw' text (i.e., the success or failure metric) in the case studies is taken directly as a coding category, which is a more objective code category than in the qualitative content analysis [24]. Quantitative content analysis is suitable as it matches the type of data source and the research goal/questions of 'what' in this study.

The purpose of the content analysis is to identify the metrics – i.e. the outcomes, benefits and business performance that can be realized from social networking services. All the finalized metrics, which are also the code categories, are then described using statistics, c.f. [25]. The second phase of data analysis is cross-case analysis, where it is implemented in order to identify the similarities and differences in the metrics used in the cases (for both successful and failed cases) considered in this study. The process undertaken to analyze the secondary data is shown in Figure 1.

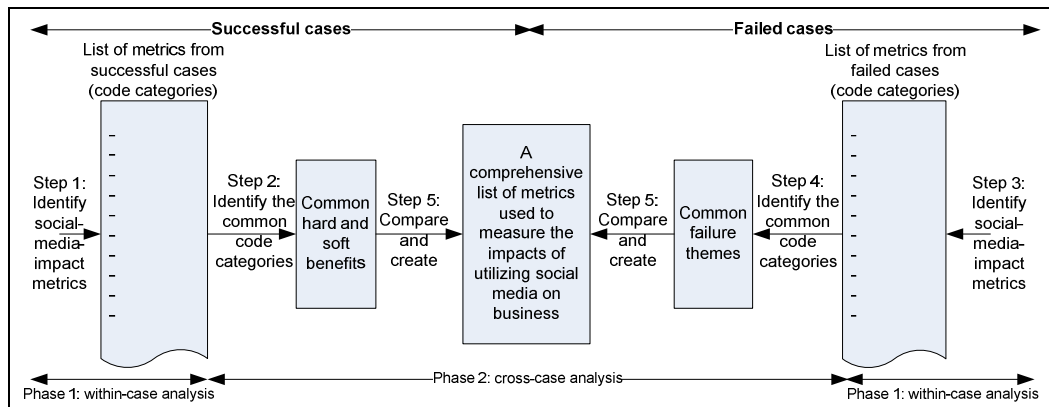


Figure 1. The process involved in analyzing the successful and failed social media cases

#### 4. Analysis of the social media success case studies

Demographic data – A total of 108 cases or companies reported in the trade press, see [16, 19, 23], to be successful in social networking services was analyzed. Based on these 108 companies, the top three industry advertising on Facebook are the food & beverage (23.1%), fashion & accessories (15.7%) and the entertainment (14.8%) industries, as shown in Figure 2. It is observed that 86% of the social commerce stores in our sample belongs to the fake/faux store type, whereas only 6% of them is a full store (Figure 3). However, the relative percentage of the total number of companies in both types of social commerce store realizing the expected benefits from utilizing the social media in business is about the same.

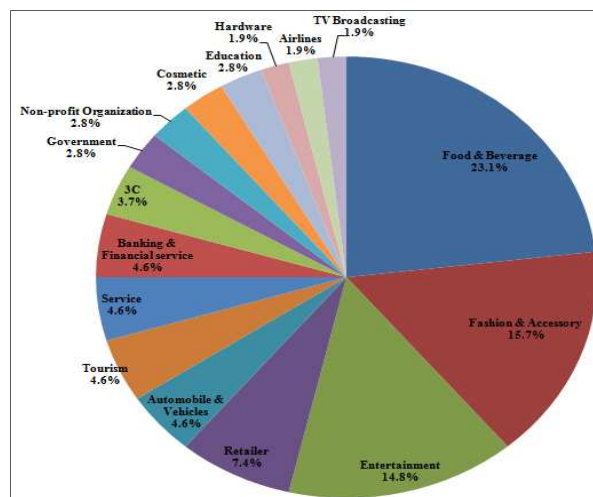


Figure 2. The industries utilizing the social media for ad

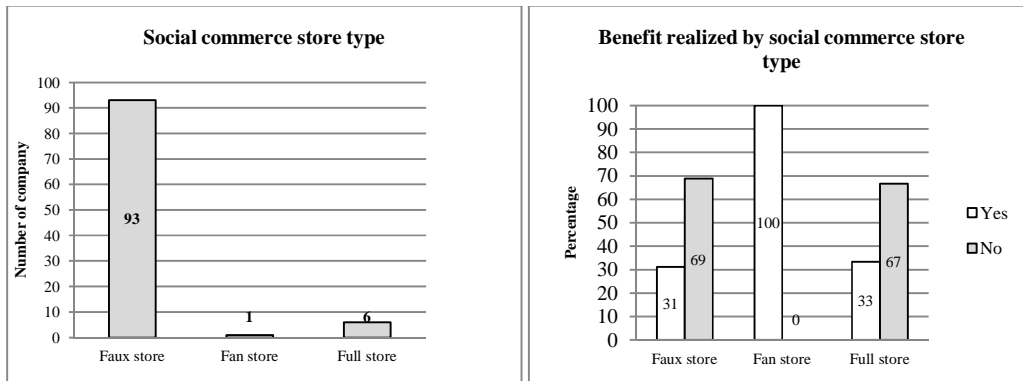


Figure 3. Social commerce store type distribution

Out of the 108 companies, 66% of them set their advertising targets and these are based on the demographic data usually provided by the social media users when they set-up their account for a social site. The four most common advertising targets that these companies utilize are based on the age, interest/like, gender and geographical location (Figure 4). Comparatively, companies that set their advertising target(s) have a higher chance or probabilities of obtaining the expected benefits than those companies without any advertising target (Figure 5).

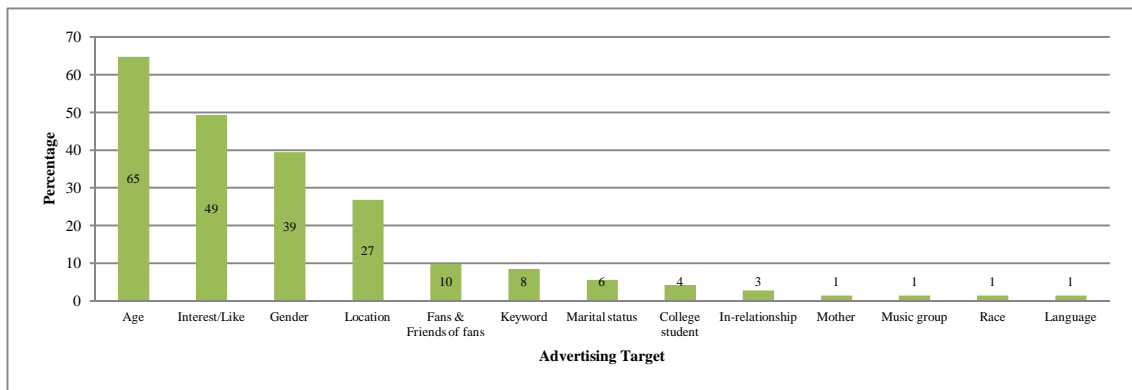


Figure 4. The target groups commonly used in advertising in social media

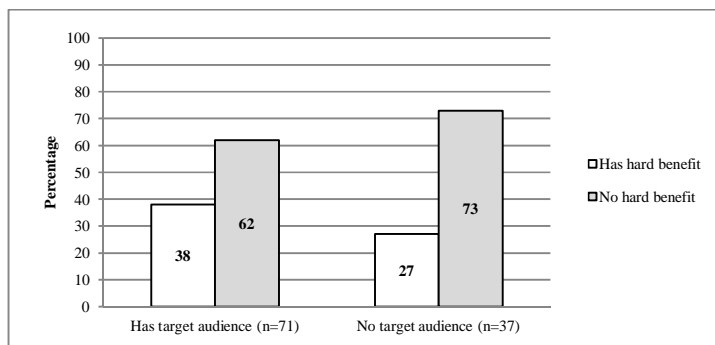


Figure 5. Comparison of hard benefit realized by companies that set versus do not set their advertising target audience

#### 4.1 Analysis of the social media impacts from successful case studies

Step 1: Identify the list of social media outcome and impact metrics from successful case studies (Figure 1) – Detailed content analysis was conducted on 108 companies that published their successful experiences in conducting their marketing and advertising activities in the social media, such as Facebook, Twitter and YouTube. Examples of the top brands analyzed in this study are shown in Table 2. (Due to the page limit, only a few companies are listed in Table 2. More details are available upon request.) The metrics used to evaluate the favorable outcomes or benefits obtained by these companies, which they mention in their case studies and are taken as our coding categories, are: the engagement with fans, increase in number of fans, number of subscribers, number of mentions, purchase intent, click through rate, increase in sales, revenue and ROI.

**Table 2. Content analysis results – Companies succeed in using social media as a marketing tool [16, 19, 23]**

No	Company name	Industry	Social media impact's metrics (code categories from successful cases)	Social media
1	Addidas <a href="http://www.facebook.com/adidasoriginals">http://www.facebook.com/adidasoriginals</a>	Fashion & Accessory	Engagement, Page Fans, Connection, Video view, Brand awareness, Physical store traffic	Facebook
2	All Nippon Airways <a href="https://www.facebook.com/flyworldana">https://www.facebook.com/flyworldana</a>	Airlines	Click through rate, ROI	Facebook
3	American Express <a href="http://www.facebook.com/americanexpress">http://www.facebook.com/americanexpress</a>	Banking & Financial service	Impressions, Mentions, Downloaded promotional materials	Facebook
4	Appleton Estate <a href="http://www.facebook.com/AppletonRum">http://www.facebook.com/AppletonRum</a>	Food & Beverage	Page Fans, Subscribers, Company website traffic	Facebook
5	Arizona Office of Tourism <a href="http://www.facebook.com/arizonatravel">http://www.facebook.com/arizonatravel</a>	Tourism	Connections, Conversion rate, Company website traffic	Facebook
6	ASB (bank) <a href="http://www.facebook.com/ASBbank">http://www.facebook.com/ASBbank</a>	Banking & Financial service	Engagement, Page Fans, Impressions, Brand affinity, Brand recommendation	Facebook
7	AT&T <a href="http://www.facebook.com/ATT">http://www.facebook.com/ATT</a>	CCC	Page Fans, Brand awareness, Brand affinity, Sales, ROI	Facebook
8	Bob Evans Restaurant <a href="http://www.facebook.com/bobevans">http://www.facebook.com/bobevans</a>	Food & Beverage	Impressions, Page like, Clicks, ROI	Facebook
9	Canvas People (online canvas printing company) <a href="http://www.facebook.com/canvaspeople">http://www.facebook.com/canvaspeople</a>	Entertainment	Page like, Online order	Facebook
10	Giantnerd <a href="http://www.facebook.com/Giantnerd">http://www.facebook.com/Giantnerd</a>	Retailer	Conversion to buy, Company website traffic, First time user traffic, Revenue increase	Facebook
11	Kia Motors America <a href="http://www.facebook.com/kia">http://www.facebook.com/kia</a>	Automobile & Vehicles	Engagement, Page Fans, Brand awareness, Better brand image	Facebook
12	Lacoste <a href="http://www.facebook.com/Lacoste">http://www.facebook.com/Lacoste</a>	Fashion & Accessory	Impressions, Conversion rate, Online sales increase	Facebook
14	Momentum Pictures <a href="http://www.facebook.com/MomentumPicturesUK">http://www.facebook.com/MomentumPicturesUK</a>	Entertainment	Purchase intent, Video view	Facebook
15	Nike <a href="http://www.facebook.com/NikeRunni">http://www.facebook.com/NikeRunni</a>	Fashion & Accessory	Engagement, Page Fans, Impressions, 32% sales	Facebook



	<a href="#">ngNederland</a>		increase	
16	O2 ( telecommunication company) No Facebook page	3C	Impressions, Fan postings or Interaction, Brand affinity, Brand Recommendation	Facebook
17	RBS Insurance <a href="http://www.facebook.com/rbs.group">http://www.facebook.com/rbs.group</a>	Banking & Financial service	Page like, Click through rate/Clicks	Facebook
18	Scotiabank <a href="http://www.facebook.com/scotiabank">http://www.facebook.com/scotiabank</a>	Banking & Financial service	Engagement, Ads view, Page view	Facebook
19	Sephora (beauty company) <a href="http://www.facebook.com/Sephora">http://www.facebook.com/Sephora</a>	Cosmetic	Engagement, Physical store traffic, Page like, Company website traffic	Facebook
20	Shane Co. (jeweler) <a href="http://www.facebook.com/shanecompany">http://www.facebook.com/shanecompany</a>	Fashion & Accessory	Page Fans, Impressions	Facebook
21	State Bicycle Company <a href="http://www.facebook.com/StateBicycle">http://www.facebook.com/StateBicycle</a>	Fashion & Accessory	Page Fans, Company website traffic, Annual incremental sales, Cheaper advertising Cost	Facebook
22	Toyota Hybrid Synergy Drive <a href="http://www.facebook.com/ToyotaHybridSolutions">http://www.facebook.com/ToyotaHybridSolutions</a>	Automobile & Vehicles	Engagement, Page Fans, Identify and reach sales target, Video view	Facebook
23	Victory Motorcycles <a href="http://www.facebook.com/victorymotorcycles">http://www.facebook.com/victorymotorcycles</a>	Automobile & Vehicles	Page Fans, Conversion rate	Facebook
24	Watsons (retail) <a href="http://www.facebook.com/watsons.sg">http://www.facebook.com/watsons.sg</a>	Retailer	Engagement, Page Fans, Active users and daily users, Identify and reach sales target, Target audience increase	Facebook
25	Generations Federal Credit Union <a href="https://www.facebook.com/mygenfcu">https://www.facebook.com/mygenfcu</a>	Banking & Financial service	Engagement, Page Fans, New user traffic, Qualified lead, Facebook as an engagement area	Facebook
26	Nike at the Olympics <a href="https://www.facebook.com/nike">https://www.facebook.com/nike</a>	Fashion & Accessory	Engagement, Page Fans	Facebook
27	Dumb Ways To Die <a href="http://www.youtube.com/watch?v=JNR2EpS0jw">http://www.youtube.com/watch?v=JNR2EpS0jw</a>	Transportation	Engagement, Ads view, Brand awareness	Youtube
28	Prometheus <a href="http://www.twitter.com">www.twitter.com</a> (using the hashtag: #areyouseeingthis)	Entertainment	Engagement, Identify and reach sales target	Twitter
29	Old Spice <a href="http://www.youtube.com/watch?v=owGykVbfqUE">http://www.youtube.com/watch?v=owGykVbfqUE</a>	Entertainment	Ads view, Ads click	Youtube
30	Heineken <a href="http://www.youtube.com/watch?v=PvhAP0vRnF4">http://www.youtube.com/watch?v=PvhAP0vRnF4</a>	Food & Beverage	Engagement, Brand affinity, Page view	Youtube
...	...	...	...	...
108	Mini USA <a href="http://www.youtube.com/watch?v=Cm8C1TpPkUQ">http://www.youtube.com/watch?v=Cm8C1TpPkUQ</a>	Automobile & Vehicles	Ads view, Ads click	Youtube

From the process of analyzing the 108 cases in Step 1, a total of 52 (social media outcome/impact) commonly used metric code categories is identified. It is observed (in Table 3) that the basic concepts underlying in some of these metrics are very close together and have similar characteristics. Thus, the categories representing the same theme are grouped and the total number of code categories is reduced from the original number of 52 to 17



(social media outcome/impact) metrics or code categories. The definition of each code category is given in Table 3.

**Table 3. Condensed list of commonly used social media impact's metrics**

No	Impact's metric and its definition – based on successful social media cases (17 code categories)	Details (the original 52 code categories)
1	Page Fans – an increase in the number of fans in the brand-page	Page fans
2	Engagement – an increase in the number of unique people who have shared, liked, commented, or responded to an activity in the brand-page *	Engagement, fan postings, interaction, comments, feedbacks, mentions
3	Impressions – an increase in the number of times an advertising material or a post from the brand-page is presented to the users regardless been clicked or not *	Video view, impressions, ads view, ads click, page view
4	Business lead – able to obtain more target audiences	Business leads, subscribers, connections, purchase intent, first time user traffic, new user traffic, new guests, identify and reach sales target, qualified lead, target audience increase
5	Online website traffic – an increase in traffic to the company's web-store	Company website traffic, online marketing traffic, company ordering web site
6	Click through rate - an increase in the number of clicks on the advertising material per impression *	Click through rate, clicks
7	Page like – an increase in the number of likes or popularity of the brand-page	Page like
8	Conversion rate – an increase in the number of times people liked a Page or Place, participations in an event, installed a brand-page' app or direct purchase within a certain period of clicking on a brand-page's advertisement*	Conversion rate, conversion of clicks, conversion to buy
9	Brand awareness – more people are aware of or discuss about this brand	Brand awareness, brand affinity, brand recommendation, better brand image
10	Active users – users who actively participate in any event given in the brand-page	Active users, daily users
11	Physical store traffic – an increase in the number of customer visits to the physical store	Physical store traffic
12	Downloaded promotional materials – audiences participate and act on the promotional materials	Downloaded promotional materials
13	Sales – an increase in sales amount and sales order	Sales, online sales, sales increase, store sale, total sales, sales from Facebook, order value
14	Revenue – an increase in the total revenue	Revenue
15	ROI – obtain a positive return on investment	ROI
16	Expanded market – a growth in the business size	Expanded market, more customers, open new store
17	Cheaper advertising cost – a reduction in advertisement costs	Cheaper advertising cost

\* Reference - [26]

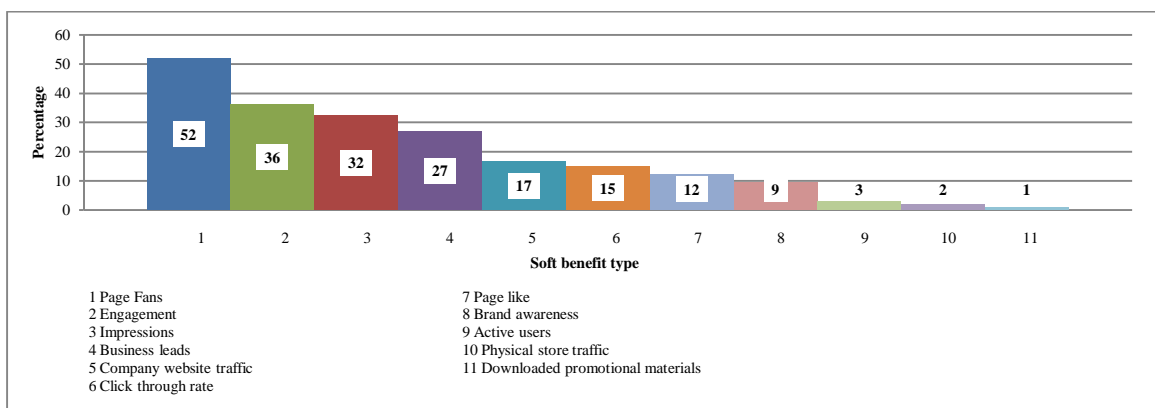
Step 2: Classify the social media impact's metrics into soft and hard benefits – This is followed by categorizing the social media impacts or outcomes, which these companies obtain, into soft and hard benefit. Soft versus hard benefit categorization is used here as its emphasis is on the benefit's impact on the balance sheet or profit and loss. These types of

benefits are more relevant to businesses [27]. Hard benefit is defined as benefit which has a tangible financial outcome; and it is usually represented in terms of quality, productivity, cost and time [27]. On the other hand, soft benefit is not easy to be measured, and requires some efforts to quantify and convert it into a monetary value [28]. The list of soft and hard benefits identified is as shown in Table 4.

**Table 4. List of commonly used hard and soft benefits from social media advertising**

Hard Benefit	Soft Benefit
1 Sales, online sales, order value	1 Engagement, fan postings, interaction, comments, feedbacks, mentions
2 Revenue	2 Page fans
3 ROI	3 Video view, impressions, ads view, ads click, page view
4 Expanded markets, more customer, open new store	4 Business leads, subscribers, connections, purchase intent, first time user traffic, new user traffic, new guests, identify and reach sales targets, qualified lead, target audience increase
5 Cheaper advertising cost	5 Company website traffic, online marketing traffic, traffic/company ordering web site
6 Conversion rate, conversion clicks, conversion to buy	6 Click through rate, clicks
	7 Page like
	8 Brand awareness, brand affinity, brand recommendation, better brand image
	9 Active users and daily users
	10 Physical store traffic
	11 Downloaded promotional materials

The distribution of different types of soft benefit realized by companies advertising on social media based on our sample data is shown in Figure 6. It is observed that 52% of the companies experienced an increase in the number of fans, 36% experienced an increase in fans’ engagement or interactions, 32% obtained improvements in page viewed, 27% obtained a boost in business leads or new user traffics and followed by 17% raise in company’s website traffics. Out of 108 companies, 37 companies (or 34%) revealed that they realized hard benefits from the social media activities. From the hard benefits perspective, more than 50% of the companies mentioned an increase in sales, 30% obtained conversion to buy, 24% achieved a rise in revenue and 22% achieved a better ROI (as shown in Figure 7)



**Figure 6. The types of soft benefit obtained from utilizing social media advertising**

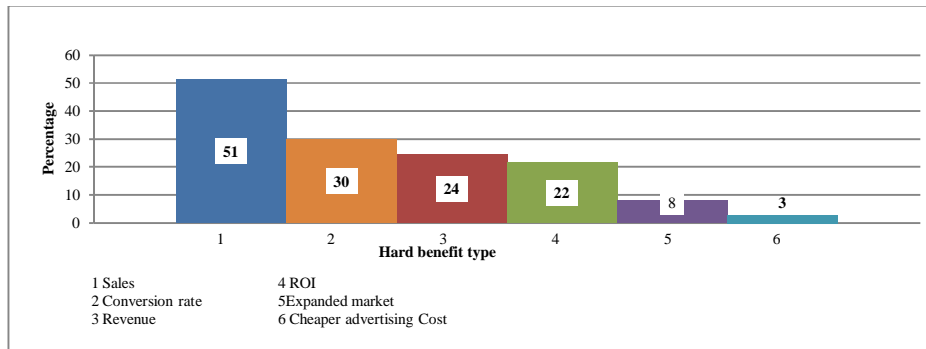


Figure 7. The types of hard benefit obtained from utilizing social media advertising

The cross tabulation results in Table 5 show that the hard benefit of ‘sales’ is dependent on the number of page fans and engagement from the page’s audiences. In particular, companies that mention realizing sales increase have first obtained the soft benefits of increment in the number of page fans, engagement, company’s website traffics, and impressions.

Table 5. Cross tabulation between soft benefits and hard benefits

Soft benefits	Hard benefits					Total (# of companies)
	Sales	Revenue	ROI	Expanded market	Conversion rate	
Page Fans	9	1	3	0	1	14
Impressions	4	3	1	1	2	11
Click through rate/Clicks	2	2	3	2	1	10
Engagement	5	2	1	1	1	10
Company traffic	5	2	0	0	0	7
Business leads	3	2	1	1	0	7
Total (# of companies)	28	12	9	5	5	59

#### 4.2 Analysis of the social media impacts from failed case studies

Step 3: Identify the list of social media outcome and impact metrics from failed case studies (Figure 1) – This step was undertaken to identify *other* metrics, from a different perspective, that were linked to the failures in utilizing social media in business. Similarly, trade press was reviewed and detailed quantitative content analysis was conducted on 18 companies having some unsuccessful experiences in conducting their marketing and advertising activities in the social media, such as Facebook, Twitter and Blog. Examples of some of the top brands analyzed in this study are shown in Table 6. A list of social media outcomes and impacts’ metrics used to describe and measure the failures in social media advertising (i.e., the unfavorable outcomes from utilizing the social media in business) by these case studies is shown in Table 6. This list forms the basis for the coding categories in the content analysis.

Table 6. Content analysis results – Companies failed in using social media as a marketing tool [16, 21, 23]

No	Company name	Industry	Commonly used impact’s metrics (code categories)	Social media
1	Pizza Delicious <a href="http://www.facebook.com/PizzaDeliciousNOLA">http://www.facebook.com/PizzaDeliciousNOLA</a>	Food & Beverage	- Very low CTR (click through rate) - Negative ROI - Facebook ads were clicked 1 time - 10% increase in fans	Facebook

2	General Motors <a href="http://www.facebook.com/generalmotors">http://www.facebook.com/generalmotors</a>	Auto-mobile & Vehicles	<ul style="list-style-type: none"> <li>- Very low CTR</li> <li>- Cannot increase brand awareness, engagement, interaction, and customer satisfaction</li> <li>- During the campaign, the overall sales do not increase</li> </ul>	Facebook
3	Tesla Motors <a href="http://www.facebook.com/teslamotors">http://www.facebook.com/teslamotors</a>	Auto-mobile & Vehicles	<ul style="list-style-type: none"> <li>- Very low number of Facebook fans</li> <li>- Cannot increase brand awareness, engagement, interaction, and customer satisfaction</li> </ul>	Facebook
4	Netflix <a href="http://www.facebook.com/netflix">http://www.facebook.com/netflix</a>	Entertainment	<ul style="list-style-type: none"> <li>- Cannot increase brand awareness and customer satisfaction</li> </ul>	Facebook
5	Goldman Sachs <a href="http://www.facebook.com/goldmansachs">http://www.facebook.com/goldmansachs</a>	Banking & Financial service	<ul style="list-style-type: none"> <li>- Very low number of Facebook fans</li> <li>- Cannot increase brand awareness, engagement, interaction</li> <li>- Goldman Sachs do not engage and respond to their fans</li> </ul>	Facebook
6	WalMart <a href="http://www.facebook.com/walmart">http://www.facebook.com/walmart</a>	Retailer	<ul style="list-style-type: none"> <li>- Cannot increase brand awareness, engagement, interaction, and customer satisfaction</li> </ul>	Facebook
7	American Apparel <a href="http://www.facebook.com/AmericanApparel">http://www.facebook.com/AmericanApparel</a>	Fashion	<ul style="list-style-type: none"> <li>- Lack of ROI</li> </ul>	Facebook
8	FLITTER <a href="https://www.facebook.com/nzfa">https://www.facebook.com/nzfa</a> <a href="https://www.facebook.com/MovemberNewZealand">https://www.facebook.com/MovemberNewZealand</a>	Service	<ul style="list-style-type: none"> <li>- Fail to connect with the customers on the site</li> </ul>	Facebook
9	ODEON <a href="http://www.facebook.com/ODEON">http://www.facebook.com/ODEON</a>	Entertainment	<ul style="list-style-type: none"> <li>- Show weakness of failing to solve a certain problem in the social media</li> </ul>	Facebook
10	Ryanair <a href="http://www.facebook.com/pages/Ryanair/24694184960">http://www.facebook.com/pages/Ryanair/24694184960</a>	Airlines	<ul style="list-style-type: none"> <li>- Show weakness of failing to address a crisis/issue raised in the social media</li> <li>- Lack of responsiveness to problem</li> <li>- Lack of care for the customers' concerns</li> </ul>	Facebook
11	McDonald's <a href="http://www.twitter.com">www.twitter.com</a> (using the hashtag: #McDStories)	Food & Beverage	<ul style="list-style-type: none"> <li>- Consumers complain about the company's service and the quality of the food</li> <li>- People use hashtag to attack them</li> </ul>	Twitter
12	Snickers <a href="http://www.twitter.com">www.twitter.com</a> (using @snickersuk #hungry #spon)	Food & Beverage	<ul style="list-style-type: none"> <li>- Consumers annoyed to read the marketing messages</li> <li>- 2 users complained to the Advertising Standards Authority</li> </ul>	Twitter
13	Urban Outfitters <a href="http://www.twitter.com">www.twitter.com</a> (using the hashtag: #ALLSOGGY)	Retailer	<ul style="list-style-type: none"> <li>- Ill-timed tweet</li> </ul>	Twitter
14	HubSpot <a href="http://blog.hubspot.com/blog/tabid/6307/bid/33771/5-Hurricane-Sandy-Newsjacks-From-Marketers.aspx">http://blog.hubspot.com/blog/tabid/6307/bid/33771/5-Hurricane-Sandy-Newsjacks-From-Marketers.aspx</a>	Service	<ul style="list-style-type: none"> <li>- Blog users have a lot of criticisms</li> </ul>	Blog
15	Swedish tourist board <a href="http://www.twitter.com">www.twitter.com</a>	Tourism	<ul style="list-style-type: none"> <li>- The followers had the controversy</li> </ul>	Twitter
16	Steven Gerrard <a href="http://www.twitter.com">www.twitter.com</a> (using the hashtag: #AskStevieG)	Entertainment	<ul style="list-style-type: none"> <li>- Hashtags was hijacked by spambots or jokers</li> </ul>	Twitter
17	KitchenAid <a href="http://www.twitter.com">www.twitter.com</a>	Retailer	<ul style="list-style-type: none"> <li>- The message is about the political</li> </ul>	Twitter

	(using the hashtag: #nbcpolitics)			
18	Waitrose <a href="http://www.twitter.com">www.twitter.com</a> (using the hashtag: #WaitroseReasons)	Retailer	- People hijacked their hashtags to poke fun at the brand	Twitter

Step 4: Identify the common themes of social media impacts in the failed cases – Some of the social media impact metrics (in Table 6) are similar to one another, e.g. engagement and interaction are referring to the same idea of page fans’ participations in the activities posted on a brand-page. For this reason, a common code category is assigned to the metrics that refers to the same theme or concept. A total of 9 distinct themes is identified from the list of social media impact’s metrics described in the cases reviewed in this section of data analysis. They are shown in Table 7.

**Table 7. Social media impact’s metrics from failed social media cases**

Social media impact’s metric and its definition – based on failed social media cases	Common metric with the successful social media cases
1. Click through rate – low in the number of clicks on the advertising material per impression	✓ (Soft benefit)
2. ROI – negative and/or lack of return on investment	✓ (Hard benefit)
3. Number of fans – low number of fans	✓ (Soft benefit)
4. Brand awareness – no improvement in brand awareness	✓ (Soft benefit)
5. Engagement – no improvement in engagement and interaction or failed to connect with the customers and fans	✓ (Soft benefit)
6. Sales – no obvious increment the overall sales	✓ (Hard benefit)
7. Customer dis/satisfaction – customer dissatisfaction due to lack of responsiveness to customers’ complaints/problem and care for the customers’ concerns, failure in solving customer’s problem	(Soft disbenefit)
8. Vulnerability – the risk of identify theft, ill- timed message, being hijacked, and showing weakness in failing to solve a certain issue/problem in the social media	(Soft disbenefit)
9. Brand reputation – a tarnished brand reputation due to criticism, numerous complaints and controversy from fans and customers, inappropriate marketing message if no appropriate crisis management plan is in place	(Soft disbenefit)

Step 5: Compare and identify the common code category in both successful and failed cases (Figure 1) – As observed in Table 6, the *common* metrics used by more than 100 companies worldwide, for both successful and failed cases, in evaluating the impacts of social media advertising on businesses are: click through rate, number of fans, engagement, brand awareness, ROI, and sales. The metrics, which are dissimilar to the impact metrics identified earlier on from the successful case studies, are: customer dis/satisfaction, vulnerability and brand reputation. These metrics, named as soft disbenefit here, are relatively intangible to quantify, however, they may have a major negative effect on the business’s image and reputation. The result here shows that certain social media impact metrics are widely and commonly used by businesses as benchmarks in evaluating the effectiveness of the social media as a marketing tool.

#### 4.3. Social media impact’s metric – from the business’s perspective

The above data analysis shows that there are numerous salient metrics, which can be very important for evaluating the impacts of social media, and measuring the success and failure of social media marketing. For a better benefit management and an understanding of how to

derive business performance from the social media advertising project, these impact metrics can be separated into outcomes, benefits and financial impacts (or business performance), according to Payne [29].

The outcome is defined as the effect, change and difference (depending on its context) before and after an IT project or investment. According to Ward et al. [30], outcomes can be expected and unexpected, and positive and negative. Benefits are business impacts and improvements resulting from one or more outcomes of an IT project or investment. It can be tangible or intangible, direct or indirect impact on business performance, having different impacts at different management-level or in a different organization, and may change from time to time [31]. Business performance is the financial impacts and improvements in financial performance resulting from one or more benefits realized from an IT or investment [29], e.g., an investment in social media advertisement.

Thus, outcomes come before benefits, and benefits generate various results in business performance. Based on this logical sequence, the creation of business performance from social media impact (by referring to Table 3 and 7) is demonstrated in Figure 8. For an illustrative purpose, we take the Kodak’s experience of participating in Twitter’s social media as an example. This company measures tangible financial impacts obtained from social media based on the direct product sales [32]. As shown in Figure 8 and the cross tabulation results in Table 5, sales can be the results of the benefits of online website traffic, conversion rate and/or active users, which are driven by the outcomes of fan or customer engagement and impression on the brand-page in the social media. In particular, engagement and impression are calculated based on the number of videos x number of views x duration of the video, see [32].

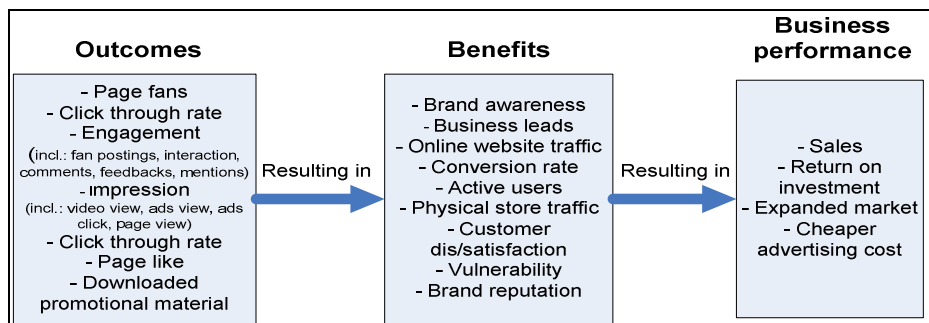


Figure 8. The steps of creating business performance from utilizing social media in business

### 5. Contribution of this study

This study makes the following contributions including: provide the state-of-the-art knowledge of the current practice of social media in businesses, offer a better understanding of the metrics used to measure the impacts of social networking services on businesses, and present the actual benefits and business performance realizable from social media advertising.

Contribution to the practice – the research findings from this study should be useful to the practitioners as it informs the types of outcomes that can be realized from the a successful social media strategy and the pitfalls to avoid based the prior experiences of other companies reviewed from the literature and trade press. For companies that are considering to implement a social media strategy – this study would provide a better understanding of the potential hard and soft benefits that can be derived from a social media strategy.

This study shows that many companies utilize social site to drive traffic to a company's e-commerce site or a web-store. However, utilizing the social site as a full store may also be equally promising from the business benefit realization's perspective, refer to Figure 3. It is a best practice to set a target audience when advertising in social media as our analysis results indicate that there is a higher chance of obtaining the hard benefits for doing so, see Figure 5. Dependency is observed between sales (– a business performance) and the number of page fans, engagement, company's website traffics, and impressions (– the outcomes and benefits obtained from social media activities). This provides some indications of the type of outcomes of social media that a business can emphasize and enhance in order to achieve a particular business performance (see Table 5 and Figure 8). The analysis result here also shows that certain social media impact metrics are widely and commonly used by businesses as benchmarks in evaluating the effectiveness of the social media as a marketing tool. They are: click through rate, number of fans, engagement, brand awareness, ROI, and sales

Contribution to knowledge – this study has highlighted the important aspects in social media, which researchers can focus on in their research areas that have high relevancy to the practice. For instance, it is found that (1) the top three industry advertising on Facebook are the food & beverage, fashion & accessories and the entertainment industries; (2) the most popular advertising target groups are age, interest/like, sex and geographical location; and (3) the specific kind of soft benefits and hard benefits realized from utilizing the social media. This knowledge can be used as a basis and foundation for further studies in the future.

Limitations and future research – this preliminary qualitative study focused on using the secondary data as the main source of data analysis and data discussion. This type of data source is sometimes limited in terms of explanatory power for the phenomenon under investigation, and in-depth exploration of cause-and-effect of the concepts and variables that appear in the data analysis process. Moreover, the *commonly used* social impact metrics, identified in this study, may not be mutually exclusive and comprehensive. Future studies may apply multiple, explanatory and positivist case studies to provide a better understanding of why social media is useful, successful and effective as a marketing and communication tool for some companies but not to the other. Out of 108 companies succeed in social media advertising, 34% of them reveal that they realize hard benefits from the social media activities. This implies that more studies can be focused on examining the contextual and organizational factors that cause the barriers to some organizations in realizing hard benefits from social media.

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