

Return on Investment in Social Media – Does the Hype Pay Off? Towards an Assessment of the Profitability of Social Media in Organizations

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Abstract

Since the popularity of customer-centered social media has increased substantially during the last few years, firms have been eager to profit from this trend. Given the uncertain payoffs and constraints on human resources, however, there is as yet no decision tool to help decide on social media implementation. Our paper addresses this gap by establishing a framework for assessing the profitability of customer-centered social media initiatives in organizations. We first outline the importance of customer-centered social media and demonstrate the research gap. We thereafter analyze the common characteristics of customer-centered social media initiatives and identify their main success drivers. We then combine the current knowledge on social media success drivers with the return on investment (ROI) research stream by proposing a balanced framework towards measuring the ROI of customer-centered social media projects. The proposed framework balances a project's high uncertainty with managers' need for hard facts. In a first step towards the framework's validation, we use 12 empirical examples to showcase the proposed framework's application.

1. Introduction

Two billion videos watched on Youtube, 70 million tweets sent, ten million photos added to Facebook: These impressive figures represent the usage of *social media* on an average day in 2010 [33]. Given their considerable popularity with consumers, corporations have realized the huge potentials that social media could harbor for them [16]. These potentials become even more apparent if one considers the important role customer knowledge plays as part of a firm's knowledge [15].

Although advertising on social media platforms has a high potential, firms have been reluctant to adopt social media initiatives [16]. A recent study

revealed that only 40% of the 30 major German firms have started using social media, and together reach only ten million Germans (about 12% of the population) [37]. Although this may seem a significant number, 93% of social media users believe every company should have a presence in social media [9]. Managers, however, are focused on the central question whether their firm's presence in social media would add value to the firm's bottom line.

Executives are constantly challenged by tradeoffs between competing strategic marketing initiatives [39]. Their decisions regarding appropriate measures are mainly based on profit maximization. If social media's long-term benefits outweigh the costs and a certain investment threshold is cleared, they will be implemented [24]. Phrased differently, firms will adopt more social media initiatives if they provide a sufficient *return on investment* (ROI). Our paper's goal is to assess social media's profitability by proposing a framework for evaluating social media initiatives.

Since the popularity of social media has increased substantially during the last few years [45], firms are eager to profit from this trend. The relatively low costs of implementing social media measures are a major catalyst of this development. Editing a Wikipedia page or creating a Twitter account is – besides the opportunity costs – free. Given the uncertain payoffs and human resource constraints, however, managers need a decision tool to decide on which social media to implement (e.g., [13; 41]).

Quantifying social media's impact can provide a framework to justify or reject them. As Kane et al. point out, the calculation of ROI in social media has been far from straightforward:

“Perhaps the most salient management theme observed in these articles [...] is the fact that the Return on Investment remains stubbornly difficult to identify and quantify. Although we can see clear anecdotal evidence for the success of these

tools [...] precisely how to measure the impact of social media remains elusive.” [21, p. iii]

Thus, the need to establish a practical framework to assess social media’s profitability is evident. Such a framework would help improve management decision-making, as well as resource allocation, and identify best practices [13; 26; 41].

Our work contributes a practical framework to quantify social media’s benefits. This framework specifically fosters the understanding of customer-centered social media and provides executives with a tool to decide on whether to implement social media or not. Selected empirical examples illustrate that social media lead to positive ROI across the analyzed social media platforms.

The literature study provides a comprehensive overview of related work on social media and ROI literature. It indicates the gap between research dealing with traditional ROI calculations and the actual quantifying of social media usage’s profitability in organizations. Desk research and conceptual modeling lead us to the logically deduced framework that we propose in this study. We use secondary case data to illustrate the validity of our conceptualization.

The paper is structured as follows: First, we define the terms social media and ROI. Next, using standards established by Webster and Watson, a literature review of the current research on traditional ROI calculation is presented [48]. As our paper’s main contribution, we propose a framework for estimating the ROI of social media projects. The proposed framework is then tested on empirical examples to (a) demonstrate the profitability of social media in differing firms and industries, and to (b) apply the proposed framework to real-life examples. We conclude by briefly stating the limitations of our work and proposing starting points for further research.

2. Foundations

2.1. Customer-centered social media

The management of knowledge contributed from outside the organization, specifically from customers, has been recognized as an important facet of today’s organizational knowledge management [15]. However, the phenomenon of customer-centric knowledge management initiatives in the realm of social media, or Enterprise 2.0, has not yet been sufficiently discussed in the literature.

McAfee [28, p. 23] defines Enterprise 2.0 as the “use of emergent social software platforms within firms, or between firms, and their partners or

customers.” In the context of our paper, social media refer exclusively to external, customer-focused initiatives. The focus on customer-centered initiatives ensures a comparable and consistent evaluation of those social media projects that presumably show a significant impact on customer-centric business processes.

A multitude of studies on social media has been published during the last years, all of which emphasize the growing importance of social media (e.g., [12; 15; 34; 37; 41; 45]). Currently, users spend the majority of their online time on social media [23; 31]. The Marketing Science Institute acknowledges the importance of social media by defining understanding them better as one of its central research topics for the next years [26].

2.1.1. The 3-M framework. Gallagher and Ransbotham’s 3-M framework – depicted in Figure 1 – is useful to improve understanding of the change brought about by social media and the implications of that change. Before the emergence of social media platforms, two direct relationships existed between an organization and its customers and one indirect relationship: firm-to-customer, customer-to-firm, and customer-to-customer interaction. These relationships are “intensified” [16, p. 197] through social media and new ways have been created to use traditional options. The name 3-M represents the three communication flows between a firm and its customer, which are described as *Megaphone* (firm-to-customer communication), *Magnet* (customer-to-firm communication), and *Monitor* (customer-to-customer communication) [16].

The big change introduced by social media is the visibility of these customer-to-customer interactions [25; 27; 40], which has two important implications. First, social media have created the potential of a better customer insight and more accurate market intelligence.

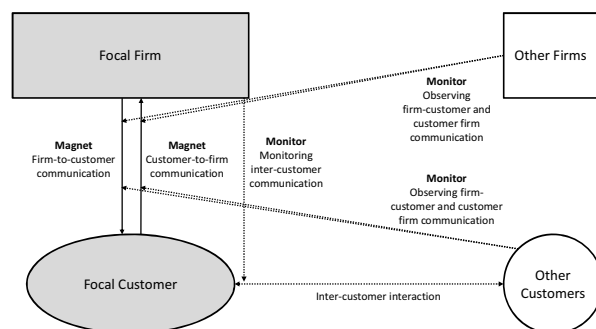


Figure 1. The 3-M framework by Gallagher & Ransbotham [16]

Second, social media enable a firm to actively participate and steer communications that were once beyond its control. This requires cautious and intelligent firm action due to online communication's reach, visibility, and permanence [16].

Third, an individual's sphere of influence is strongly amplified by social media [26]. Before the digital age, customer opinions had a minimal impact on the marketplace dynamics due to their limited reach [25; 27]. To recapitulate an analogy by Shirky [40]: "With social media, it is as if every book comes with a printing press, every phone with a broadcast tower."

Fourth, social media constitute an empowerment of the firm. Social media are a very powerful tool with which to monitor customer-to-customer communication and intervene when necessary [16]. Numerous studies have identified word of mouth (WOM) as one of the most persuasive forms of promotion, if not the most persuasive form (e.g., [7; 16; 20; 43; 47]). The ability to influence and magnify WOM benefits is thus highly valuable. Overall, the change introduced by social media can be summarized as a significant increase in transparency. Customers learn about other customers' experiences, and firms learn about customer feelings towards their products. Social media are therefore a significant driver to eliminate market inefficiencies and improve the competitive environment, as they help to weed out poor quality products over time.

Microblogs, social networks, videosharing websites, and crowdsourcing websites are more closely examined in section 4, as these platform types are consistently cited as essential to businesses regardless of an organization's size and industry (e.g., [10; 13; 37; 41; 45]).

2.1.2. Benefits of social media initiatives. The ROI in social media framework that we later propose (section 3) relies strongly on the benefits that social media deliver. According to three independent studies, the most cited social media benefits are a greater reach, improved business generation, increased customer loyalty, improved communication with customers, and avoidance of customer dissatisfaction [10; 13; 41].

First, a greater reach – often at relatively low costs – is an important advantage for all businesses (e.g., [13; 25]). Second, social media platforms help businesses generate more sales [13; 41]. Direct calls for action, such as Dell's tweets regarding available discounts [36], and customer-generated product development through crowdsourcing [16] are two examples of driving profits with social media [10]. Third, businesses appreciate the possibility of better

customer retention and increased customer loyalty [13; 41]. Studies have suggested that acquiring a new customer may be five times as expensive as maintaining an existing customer [19]. Higher retention is achieved by means of linking branding to social networks [10] and resolving customer issues as soon as they appear online [16]. Fourth, improved customer communication is a rather qualitative advantage [13; 41], but one with large potential impact, especially given social media's visibility, permanence, and reach. Fifth, social media's wide reach and visibility are a double-edged sword for firms. Social media platforms may "spread outrage, discontent, and ridicule just as rapidly" as they spread firm messages [16, p. 199]. Therefore, social media monitoring is necessary to enable a quick response to customer dissatisfaction and, thus, avoid customer outrage and a loss of image.

The benefits of social media will later be used to measure the return on social media projects.

2.2. ROI

ROI is a success metric that is widely used and accepted in practice [24]. It fulfills business leaders' need for a tangible profit from investment, which both general customer marketing investments and social media projects have to provide [14; 17]. In its basic form, ROI is defined as the net proceeds from an investment over its costs [24, p. 54].

ROI measures have various challenges that have to be addressed when establishing a meaningful metric. First, in practice, ROI often ignores the long-term effect on brand equity [11], which will lead to social media projects' financial impact being underestimated [38]. Forecasting returns for future periods is difficult and will be inaccurate [1]. Second, ROI does not equal maximum profitability [22]. ROI models in firms thus need to aim at maintaining a "critical mass in the customer base" [17, p. 239] and need to be adjusted due to the disparity between optimum profitability and ROI.

Third, managers solely rely on financial methods. Financial metrics, however, have proven insufficient to quantify, and thus justify, marketing investments. Nonfinancial metrics have been called for and are increasingly used, but generally lack the level of approval that hard financial figures enjoy [8; 26; 38].

While this section on the definition of ROI has uncovered several flaws, it has also demonstrated the need for a central decision tool for executives in today's business environment. Researchers have suggested using more than a single "silver metric" [1, p. 257] to avoid ROI's downsides.

3. Towards a framework for assessing the profitability of social media

3.1. Analysis of established marketing ROI concepts

Two main components of the ROI framework proposed in our paper are the return on marketing investment framework established by Rust, Lemon, and Zeithaml [39] and Lenskold's book "Marketing ROI" [24].

Marketing actions generally aim to build long-term assets [38]. In a customer-centric approach, this asset is known as customer equity (e.g., [3; 4; 39]). Following the definition by Rust et al., customer equity is defined as "the total of the discounted lifetime values summed over all of the firm's current and potential customers" [39, p. 110]. Customer equity can be transformed into short-term profitability. Marketing efforts can, therefore, leverage long-term, market-based assets and transform these assets into short-term profits [38]. When analyzing marketing actions, long-term results are thus particularly important [38]. A single-period framework would not represent marketing actions' full effect due to their long-term effects.

During the past 40 years, marketing practice and the literature have reflected the shift from short-term, transaction-based relationships to long-term customer relationships (e.g., [17; 42]). Non-financial metrics designed for marketing management have shown the switch to customer-centered strategies by stressing customer satisfaction [32], customer value [5], and market orientation [30].

Lenskold [24] defines several requirements for marketing ROI measurement. Effective ROI measures need to be flexible, dynamic, and focused on each incremental investment. Furthermore, since ROI is not a direct measure of a firm's profitability, it is more sensible to define the hurdle rate that a certain project has to clear. The project which clears the hurdle rate and is superior to others regarding the firm's strategic goals should be selected [24]. This allows managers to consider non-financial metrics in decision-making. Nevertheless, several errors have to be avoided when implementing this ROI approach.

A central ROI framework concept is the customer lifetime value (CLV). Berger and Nasr [2, p. 18] define CLV as the "amount by which a person, household, or firm's revenues over time exceed ... the firm costs of attracting, selling, and servicing that customer." The CLV concept can be interpreted as another move towards a more customer-centric marketing and has received ample attention from

academics [2; 29; 35]. CLV is valued as a concept because it acknowledges marketing's long-term effect and because today's investments will have an impact in multiple future periods. Discounting and summing all of a firm's present and future customers yield customer equity [39].

Given longitudinal data, there are a multitude of models that can gauge financial performance from particular marketing expenditures. These approaches, however, lack a "practical, high-level model that can be used to trade off marketing strategies in general" [39, p. 109]. The Return on Marketing Investment framework proposes an ROI-based approach to bridge this literature gap [39]. The CLV in Rust et al.'s [39] model is calculated as the expected net profit that will be received from a customer over a specified time horizon, taking into account the customer's retention rate discounted to the present.

Marketing investment's impact on CLV can be significant. CLV is increased with a reduced acquisition cost, increased realized revenue per customer, and improved retention rates [20]. Higher CLVs ultimately lead to an overall increase in customer equity. The difference between the increase in customer equity and the marketing investment cost represents the return on marketing investment [39].

WOM is defined as "the interactions among consumers about organizations, brands, products, and services" [7]. Communication may happen on or offline, and can be synchronous (e.g., face-to-face conversations, online chat, etc.) or asynchronous (e.g., e-mail, discussion board postings) [7]. Social media amplify asynchronous conversations exponentially; therefore they need to be considered in an accurate social media model. Fortunately, social media also greatly enhance the ability to track these conversations, which were difficult to measure before these interactions took place online [7; 39].

3.2. ROI in social media framework

3.2.1. Goals of the ROI in the social media framework. Our paper's main objective is to assess the profitability of social media and to provide a framework to judge whether a certain social media project adds value to a firm's external Enterprise 2.0 efforts. The proposed framework is illustrated in Figure 2.

The previous sections on social media and ROI calculation have comprehensively demonstrated that calculating ROI faces a variety of difficulties, especially given social media's unique characteristics. As Winer [49, p. 112] emphasizes, it "is clear that the traditional metrics used for TV, radio, and print do not work in [the social media]

environment.” Thus, the knowledge of social media characteristics and ROI is combined to arrive at an adjusted social media metric. The calculation of a robust number before launching an initiative entails many uncertainties, unknowns, and estimations. Consequently, a margin of safety and various non-financial measures are required. It is important to note that the approach outlined in the following does not constitute a pure ROI model. The framework is based on the basic ROI equation and extends the ROI framework to account for the shortcomings mentioned in the Foundations section, namely considering the long-term marketing effects, achieving maximum profitability, and improving the accuracy by supporting the measure with qualitative data.

3.2.2. Detailed explanation of the ROI in social media framework. The basic ingredient of the evaluation framework is Rust et al.’s [39] Return on Marketing Investment formula, which divides the difference between the change in customer equity and the marketing expenditures over marketing expenditures.

The net present value is incorporated into the customer equity and expenditures part of the formula to account for the future cash flows being worth less than the numerically equal cash flows today. A discount factor, which varies from organization to organization and may even be product-specific at large firms, has to be applied to the change in customer equity.

The framework’s first input, expenditures, is relatively easy to project. The second input, change in customer equity, has to be broken down into its components to allow exact analysis. Change in customer equity is defined as the difference between customer equity at a future point and customer equity now. The future point is to be defined by each firm individually, and depends on the project’s long-term influence. A typical CLV model uses three years as a calculation time span, although, individually, this may vary widely [20; 46].

Customer equity is computed by summing all the present and future customers’ CLVs [39]. To calculate each customer’s CLV is a tedious and unnecessarily complicated exercise. The framework therefore approximates customer equity by taking an

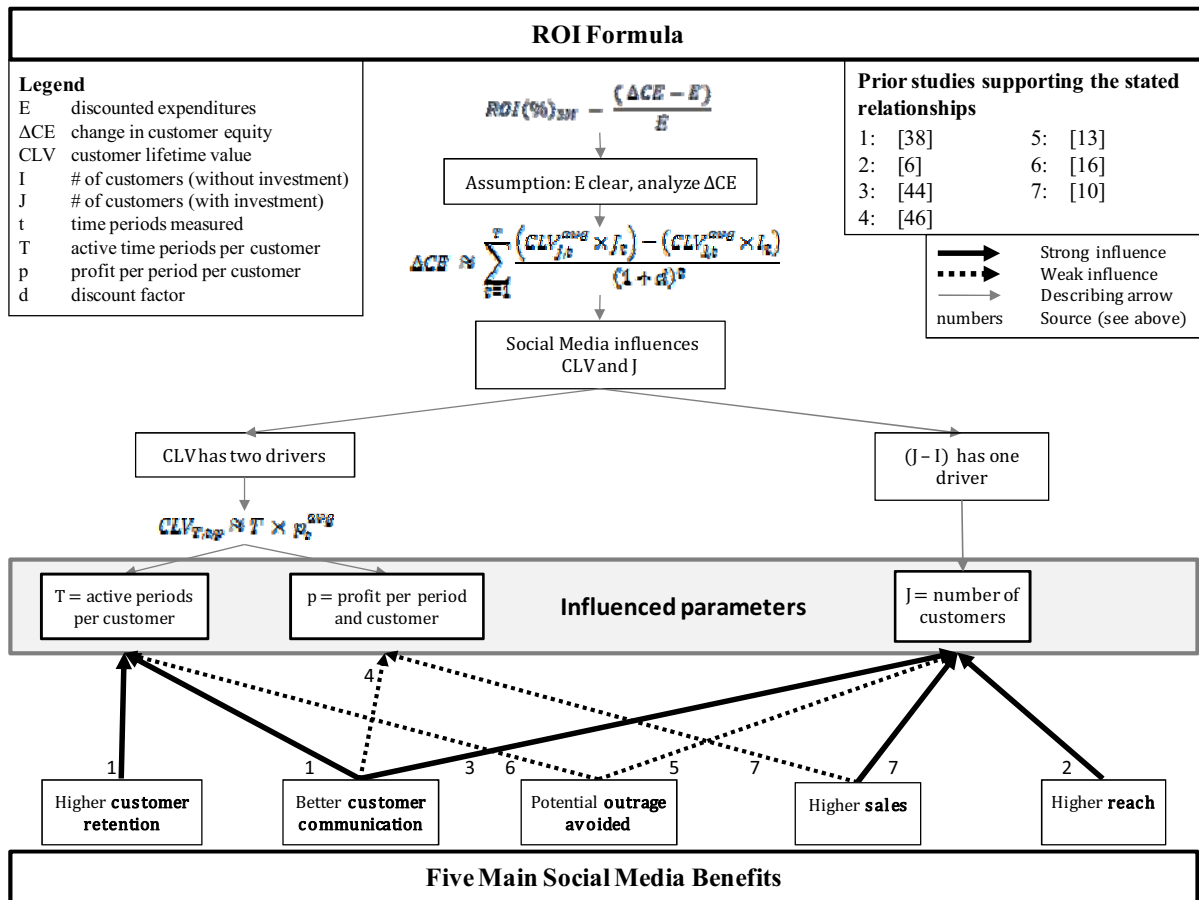


Figure 2. Proposed ROI in social media framework

average customer's CLV and multiplying it by the number of customers at point t . The number of customers is one of the parameters that social media projects can influence. The other parameters are identified by breaking down CLV into its constituents. CLV is the discounted profit from a single focal customer during his lifetime. To estimate this, the average profit per period and customer is multiplied by the average active time periods per customer (which could also be expressed as the average retention rate). The average active time periods per customer, the average profit per period and customer, and the number of customers are the three parameters that social media can influence [16].

The possible influencers are the five main social media benefits outlined in section 2.1.2. Listed in decreasing order of ease of measurability they are: greater reach, higher sales, better customer communication, higher customer retention, and potential outrage avoided. Given the social media definition, the following relationships between influencers and drivers are expected: greater reach [6] and higher sales [10] can have a strong influence on the total number of customers. Higher sales are also expected to have a minor influence on the average profit per period and customer [10]. Better customer communication influences all three parameters, as it has a strong influence on the average active periods through improved customer service [38] and the number of customers through a positive WOM effect [44]. Better customer retention mainly influences customer loyalty [38]. Avoiding potential customer outrage is the least possible of the concepts, but also the most damaging. If it occurs, it can strongly decrease customer loyalty [13] and number of customers [16].

3.2.3. Measuring social media benefits. Owing to the different measurement mechanisms available for each social media platform, measuring their impact will also differ. The four main types of social media studied in our paper are microblogs, social networks, videosharing websites, and crowdsourcing websites. The following descriptions provide possible ways to quantify the impact of each benefit-social media platform combination.

Reach is the factor that is easiest to quantify across all platforms. Ex post, Twitter followers, Facebook fans, Youtube views, and the number of users of crowdsourcing sites can be tracked easily and almost cost-free. Since every visit is examinable, WOM is much easier to track online and can be directly measured. Ex ante, however, no decision maker can predict the exact number of visitors. Planning for a project to go viral is complex at best,

if not impossible. Reach has to be estimated in advance by using reference points such as the project's scope, the initiative's attractiveness, potential for going viral, online track record, community base, and peer analysis. Besides the original estimate, an upper ceiling and a lower floor should be estimated representing best and worst-case scenarios. This principle should be used throughout the framework to attain a range of values which truly reflects the upside and downside potential of the social media initiative under investigation instead of just a single ROI estimate. Having projected three values for the social media project's reach, these figures can be directly translated into monetary equivalents by using past advertising experiences, or common media market prices to reach a certain number of customers in a particular segment.

Higher sales are the easiest to quantify, but the challenge here lies in understanding what caused a specific sale. Again, analytics toolkits can measure this and directly relate the social media effort to a concrete sale. However, these instances all require an online store. More troublesome are indirect influences, for example, when a customer uses a crowdsourcing platform to obtain advice and then proceeds to buy in a physical store. Software cannot directly track the conversion. The effect is similar to Youtube videos: They may play a part in strengthening a firm's brand, and ultimately lead to a customer purchase several days after the customer watched a funny promotional video. Executives will have to make projections to cover these eventualities. The quality of a firm's customer database, its marketing analysis expertise, and online experience will determine the quality of this estimate. Indirect influence could be inferred from the reach data calculated in the previous step. Again, three projections reflecting the worst, best, and normal-case scenarios should be given.

Since, in terms of financial metrics, measurability is only given for the first two benefit drivers, non-financial metrics are advocated to evaluate a social media project's impact on customer retention, customer communication, and outrage avoidance. It is important to note that non-financial metrics should always be regarded as peer analyses. An improvement in customer communication, for example, could be achieved through various means, each of which could be positive. Therefore, not only should the improvement in the status quo be considered, but also the initiative's performance versus that of its competing peers. This could lead to an initiative obtaining a bad grade in an area where it could improve the status quo, but the improvement could be far inferior to one that other proposed

projects offer. Additionally, each of the three drivers may be more important in different business situations and environments. Firms should therefore assign a relative weight to each non-financial benefit. At the end of this process, the framework presents three different non-financial categories in order of importance of the specific business needs.

Judging which of the competing social media initiatives increases the customer communication's quality the most is a feasible, but very context-dependent, task. The targeted consumers' communication behavior and preferences influence this decision most. Crowdsourcing, for instance, is only effective in improving customer communication when used with creative consumers who appreciate communicating their ideas to a firm. Twitter, another example, may fail to improve communication if the firm targets senior citizens who hardly know or use this service.

Online analysis tools facilitate customer retention tracking on social media web sites, such as Twitter, Facebook, Youtube, and crowdsourcing websites. The average customer retention rate can be estimated by using past data and analyzing it for the average membership (i.e. the number of Twitter followers, Facebook fans, etc.) duration. A social media project's impact on the retention rate can be projected from this information. This process, however, involves rough estimates, and can be hard to predict.

The last social media profit driver is avoiding a potential outrage through effective monitoring and trying to shift communications from customer-to-customer towards customer-to-firm [16]. Potential outrage depends on the possibility of negative WOM going viral. If this occurs, the impact depends on the effect on a customer's opinion of the firm. The negative effect may be tremendous. If a firm is not protected against this kind of threat, this aspect should receive high priority in the firm's social media initiative.

4. Review of empirical examples

The examples chosen for the first empirical assessment of the proposed ROI framework had to comply with various characteristics. First, success stories were explicitly chosen to illustrate social media's upside potential. The twelve empirical examples presented will serve as proof that profitability is achievable with the appropriate use of social media tools. Second, these empirical examples represent a broad range of different firms. These firms differ in size (measured in the number of employees), industries, and the social media platforms they used. Third, the empirical examples

had to have a sufficient data depth. Since most firms are very hesitant to share financial figures, this was a substantial challenge to overcome in the research process. As a result, none of the empirical examples features all the data necessary to thoroughly calculate the ROI. However, the level of accuracy available is still sufficient to depict how the ROI in social media framework works in general, and proves the social media's profitability in the selected examples. The data was collected by means of online research. All the empirical examples follow the structure: business case description, necessary investment, and accumulated benefits. Table 1 presents the empirical examples. These examples demonstrate that a positive ROI in social media is achievable. This finding holds across the four investigated platforms. The varying firm sizes and industries illustrate that profitability may be achieved across differing business environments. A challenge within this context was firms' reluctance to share their cost and return figures. This reluctance made a quantitatively explicit ROI calculation impossible in most of the examples (e.g., Dell). Exact quantification is not, however, necessary, since the empirical examples examined here either exhibit unusually large returns (e.g., Cisco), generate very low costs (e.g., Moonfruit), or, in some cases, even do both (e.g., Blendtec).

5. Conclusion

Given social media's steadily growing popularity with consumers, its use in customer-centered initiatives is increasing as well. We demonstrated that social media's unique characteristics demand an adapted approach to measuring ROI. Consequently, we presented the major benefits and drawbacks of social media by analyzing information systems and marketing literature. The social media benefit drivers serve as one of the two cornerstones of the ROI in social media framework. These benefit drivers are higher customer retention, better customer communication, potential avoidance of outrage, sales increases, and greater reach. They were identified by analyzing various recent studies on the advantages and current usage areas of social media.

Furthermore, we outlined and characterized ROI's most important challenges and addressed these in the proposed framework. By combining the knowledge of social media and their benefit drivers with the marketing approach to ROI, the framework can be used for calculating ex-ante and ex-post ROI in social media. The framework uses financial and non-financial measures to facilitate extensive project evaluation and decision-making.

Table 1. Overview of empirical examples

Company	Barberry	Dunkin Donuts	Starbucks	Cisco	Dr. Irena Vaksman, Dentist	Domino's Pizza	Lance Armstrong Foundation	Dell	Kogi BBQ	Moonfruit	Blendtec	Tourism Queensland
Industry	Retail	Food	Food	IT	Dentist	Food	Foundation (NPC)	IT	Food	IT	Food (supplies)	Tourism (state-owned)
Employees	5,700	120,000	130	65,000	<10	145,000	75	96,000	60	25	185	220
Country	UK	USA	USA	USA	USA	UK	USA	USA	USA	UK	USA	Australia
Social media platform	Crowdsourcing website	Crowdsourcing website	Crowdsourcing website	Orchestrated (SecondLife, 3D Game, Youtube, Facebook, blogs, etc.)	Orchestrated (Facebook, Twitter, Youtube, LinkedIn)	Orchestrated (Foursquare, affiliate marketing, superfans)	Orchestrated (Blog, Facebook, Twitter, Youtube, Flickr)	Twitter	Twitter	Twitter	Youtube	Youtube (+ Facebook)
Description	Persuades consumers to show themselves wearing Burberry apparel	Allows customers to create new donuts for Dunkin donuts	Consumers create new products and submit ideas for improvement	Launch of a new router using only social media	Orchestration of social media tools to rapidly build a new customer base in a highly competitive environment	Orchestrated social media efforts to boost the overall same-store sales	Orchestration of social media tools to generate higher donations during a recessionary economy (2009)	Use Twitter account to directly incentivize more purchases (discounts, customer service)	Twitter account updated with trucks' whereabouts, special deals, and delays	Twitter-based competition to win MacBooks and iPods	Blender presentations using odd ingredients, cross between an infomercial set and a small-time game show	Offered "best job in the world," encouraged people around to world to contribute videos
Investment	IT costs associated with the creation and promotion of the Art of the Trench website	Significant IT costs related to building and launching the donut-building website	45 employees are employed full-time on building the website	Approx. USD 20,000	Free, opportunity cost	The IT costs associated with building online social media plugins	Free, opportunity costs for Livestrong employees	Free, opportunity costs for employees updating Twitter account	Free, opportunity costs regarding the time employees take to enter Twitter updates	USD 13,500 for iPods and MacBooks	White lab coat, garden rake, marbles, eventually: Youtube/Google advertising	Changed marketing budget (AUD 4.1 million) allocated to pay for social media, approx. USD 1.5 million
Return	7.5 million page views in 150 countries 1 million Facebook fans 10% increase in same-store sales	130,000 donut submissions 218,000 total donuts created 25,000 donuts posted on Facebook, 174,000 votes	3 million visitors per month 95,000 ideas generated so far	USD 100,000 saved 3 times press articles 40 million online impressions 1,000 blog posts	Attracted a capacity-breaking 320 new clients within 5 months	Sales in its e-commerce unit grew by 61.4% in the period increased share of online sales	Raising a record-breaking USD 10.8 million 800,000 Facebook fans forming a cancer community	> \$3m in revenue from Twitter followers, > \$1m in revenue from Twitter in the past 6 months, 1.5 million followers	80,000 followers, crowds of 300 to 800 people when a truck parks	Traffic to moonfruit.com: up 600%, 44,000 followers, doubled sign-ups, SEO benefits (move to first page of Google results)	top 5 videos have > 5 million views within one month (Oct. 06) retail sales increased by 700% over 3 years	34,680 job applications AUD 410 million in publicity

Eventually, twelve empirical social media project examples were analyzed to demonstrate their profitability and illustrate the application of the ROI in social media framework. By qualitatively applying the ROI in social media framework to the empirical examples, social media's large upside potential was showcased. The empirical examples prove that social media can be profitable across business models, industries, and social media platforms.

Our paper presented a framework for measuring the benefits of social media and establishing a social media-specific ROI framework. It also succeeded in demonstrating the monetary and non-financial returns in real-life application. The proposed framework thus adequately balances academically rigorous calculations with real-life measurement limitations.

These results are subject to some limitations. First, the framework is subject to estimation errors. Uncertainty is significant in social media projects, especially regarding ex-ante decision-making. Estimation errors were minimized by using minimum and maximum projections, as well as qualitative dimensions. Second, the empirical examples examined in our paper provide a wide overview of successful social media projects on several platforms. Using only a small number of examples, however, introduces a success bias into the analysis. Only the paradigms of social media projects were showcased, while failed organizational social media usage attempts were excluded from this study, since such failures are hardly ever published. Third, additional work could broaden the scope and consider the internal dynamics of social media, such as the internal knowledge market.

An extensive empirical case study would be beneficial as it would further validate the framework. The research should include full data disclosure on the costs and expected benefits of the analyzed projects, as well as their returns. The ROI in social media framework can be refined and fully validated by applying it in practice.

We have identified several additional approaches for further research. First, it would be interesting to determine if social media success is specific to certain industries and business models. Building on current studies (e.g., [10; 37]), conclusions could be drawn regarding current successful usage and future applications. Second, determining which social media platforms are best suited for which type of organization is still open to debate. Fostering understanding of the distinct features of social media platforms and identifying specific business needs would help executives determine in which social media projects they should invest. Third, there are as yet no studies that evaluate social media's average

profitability. A large empirical data set would, however, be needed for this task.

6. References

- [1] Ambler, T. & Roberts, J. (2007). Choosing marketing dashboard metrics. In A. Neely (Ed.), *Business performance measurement: unifying theories and integrating practice* (2nd ed., pp. 237-260). Cambridge: Cambridge University Press.
- [2] Berger, P. & Nasr, N. (1998). Customer lifetime value: marketing models and applications. *Journal of Interactive Marketing*, Vol. 12, No. 1, pp. 17-30.
- [3] Blattberg, R. & Deighton, J. (1996). Manage marketing by the customer equity test. *Harvard Business Review*, Vol. 74, No. 4, pp. 136-144.
- [4] Blattberg, R., Getz, G., & Thomas, J. (2001). *Customer equity: Building and managing relationships as valuable assets*. Boston: Harvard Business School Press.
- [5] Bolton, R. & Drew, J. (1991). A longitudinal analysis of the impact of service changes on customer attitudes. *Journal of Marketing*, Vol. 55, No. 1, pp. 1-9.
- [6] Boulding, W., Lee, E., & Staelin, R. (1994). Mastering the mix: Do advertising, promotion, and sales force activities lead to differentiation? *Journal of Marketing Research*, Vol. 31, No. 2, pp. 159-172.
- [7] Carl, W., Libai, B., & Ding, A. (2008). Measuring the value of word of mouth. Advertising Research Foundation Audience Measurement 3.0 Conference, New York, NY.
- [8] Clark, B. (1999). Marketing performance measures: History and Interrelationships. *Journal of Marketing Management*, Vol. 15, No. 8, pp. 711-732.
- [9] Cone (2008). Social media study. Retrieved January 4, 2011, from <http://www.coneinc.com/content1182>.
- [10] Culnan, M., McHugh, P., & Zubillaga, J. (2010). How large U.S. companies can use Twitter and other social media to gain business value. *MIS Quarterly Executive*, Vol. 9, No. 4, pp. 243-259.
- [11] Dekimpe, M. & Hanssens, D. (1995). The persistence of marketing effects on sales. *Management Science*, Vol. 14, No. 1, pp. 1-21.
- [12] Di Gangi, P., Wasko, M., & Hooker, R. (2010). Getting customers' ideas to work for you: Learning from Dell how to succeed with online user innovation communities. *MIS Quarterly Executive*, Vol. 9, No.4, pp. 213-228.
- [13] Fink, S. & Zerfaß, A. (2010). *Social media governance 2010*. Leipzig, Wiesbaden: Universität Leipzig / Fink & Fuchs PR. Retrieved December 2, 2010, from http://www.ffpr.de/de/news/studien/social_media_governance_2010.html.
- [14] Fischer, N., Hertlein, M., Smolnik, S. & Jennex, M. (2011). Measuring Value of Knowledge-Based Initiatives - Evaluation of Existing Models and Development of a New Measurement Framework, 44th Hawaii International Conference on System Sciences, Hawaii, USA.

- [15] García-Murillo, M., and Annabi, H. (2002). Customer Knowledge Management. *The Journal of the Operational Research Society*, Vol. 53, No. 8, pp. 875-884.
- [16] Gallagher, J. & Ransbotham, S. (2010). Social media and customer dialog management at Starbucks. *MIS Quarterly Executive*, Vol. 9, No.4, pp. 197-212.
- [17] Greenyer, A. (2006). Measurable marketing: A review of developments in marketing's measurability. *Journal of Business & Industrial Marketing*, Vol. 21, No. 4, pp. 239-242.
- [18] Hakansson, H. (1982). *International marketing and purchasing of industrial goods: An interaction approach*. Chichester, UK: John Wiley & Sons.
- [19] Haywood, M. (Ed.) (1989). *Managing word of mouth communications*. *Journal of Services Marketing*, Vol. 3, No. 2, pp. 55-67.
- [20] Hogan, J., Lemon, K., & Libai, B. (2004). Quantifying the ripple: word-of-mouth and advertising effectiveness. *Journal of Advertising Research*, Vol. 44, No. 4, pp. 271-280.
- [21] Kane, G., Majchrzak, A., & Ives, B. (2010). Editors' comments. *MIS Quarterly Executive*, Vol. 9, No. 4, pp. iii-iv.
- [22] Kaplan, R., & Shocker, A. (1971). Discount effects on media plans. *Journal of Advertising Research*, Vol. 11, No. 3, pp. 37-43.
- [23] Klaassen, A. (2007). Social networking reaches near full penetration among teens and tweens. Retrieved January 7, 2011, from http://adage.com/digital/article?article_id=118763.
- [24] Lenskold, J. (2003). *Marketing ROI: The path to campaign, customer, and corporate profitability*, 1st ed. New York: McGraw-Hill.
- [25] Mangold, G. & Faulds, D. (2009). Social media: The new hybrid element of the promotion mix. *Business Horizons*, Vol. 52, No. 4, pp. 357-365.
- [26] Marketing Science Institute (2010). 2010-2012 research priorities. Retrieved January 12, 2011, from www.msi.org/research/index.cfm?id=271.
- [27] Mayzlin, D. (2006). Promotional chat on the internet. *Marketing Science*, 25(2), pp. 155-163.
- [28] McAfee, A. (2009). *Enterprise 2.0: the dawn of emergent collaboration*. Cambridge: Harvard Business School Press.
- [29] Mulhern, F. (1999). Customer profitability analysis measurement, concentration, and research directions. *Journal of Interactive Marketing*, Vol. 13, No. 1, pp. 25-40.
- [30] Narver, J. C. & Slater S. F. (1990). The effect of a market orientation on business profitability. *Journal of Marketing*, Vol. 54, No. 4, pp. 20-35.
- [31] Nielsen Corp. *What Americans Do Online: Social Media and Games Dominate Activity*, Aug. 2, 2010
- [32] Oliver, R. L. (1980). A cognitive model of the antecedents and consequences of satisfaction decisions. *Journal of Marketing Research*, Vol. 17, No. 4, pp. 460-69.
- [33] Pingdom AB (2011). *Internet 2010 in numbers*. Retrieved January 13, 2011, from <http://royal.pingdom.com/2011/01/12/internet-2010-in-numbers>.
- [34] R ath, P.; Smolnik, S. (2011): Towards a Model of Employee Weblog Usage: A Process-oriented Analysis of Antecedents and Consequences. *The International Journal of Social and Organizational Dynamics in IT*, Vol. 1, No. 3, 2011, pp. 34-49.
- [35] Reinartz, W. & Kumar, V. (2000). On the profitability of long lifetime customers: An empirical investigation and implications for marketing. *Journal of Marketing*, Vol. 64, No. 4, pp. 17-35.
- [36] Reuters (2009). Twitter helps Dell rake in sales. Retrieved January 8, 2011, from <http://www.reuters.com/article/2009/06/12/us-twitter-dell-idUSTRE55B0NU20090612>.
- [37] Rolke, L. & Flocke, L. (2010). *Wie die DAX 30 Unternehmen social media nutzen*. FH Mainz – University of Applied Sciences.
- [38] Rust, R., Ambler, T., Carpenter, G., Kumar, V., & Srivastava, R. (2004). Measuring marketing productivity. *Journal of Marketing*, Vol. 68, No. 4, pp. 76-89.
- [39] Rust, R., Lemon, K., & Zeithaml, V. (2004). Return on marketing: Using customer equity to focus marketing strategy. *Journal of Marketing*, Vol. 68, No. 1, pp. 109-127.
- [40] Shirky, C. (2009). *How social media can make history*. Conference presentation delivered at TED@State, June 2009. Retrieved December 22, 2010, from http://www.ted.com/talks/lang/eng/clay_shirky_how_cellphones_twitter_facebook_can_make_history.html.
- [41] Stelzner, M. (2009). *Social media marketing industry report*. Retrieved December 27, 2010, from <http://marketingwhitepapers.s3.amazonaws.com/sms09/SocialMediaMarketingIndustryReport.pdf>.
- [42] Storbacka, K. (1994). *The nature of customer relationship profitability*. Helsinki: Swedish School of Economics and Business Administration.
- [43] Sweeney, J., Soutar, N., & Mazzarol, T. (2008). Factors influencing word of mouth effectiveness: receiver perspectives. *European Journal of Marketing*, Vol. 42, No. 4, pp. 344-364.
- [44] Taylor, A. (2002). Driving customer satisfaction, Forethought. *Harvard Business Review*, Vol. 80, pp. 24-25.
- [45] Universal McCann (2010). *The socialisation of brands – Social media tracker 2010*. Retrieved February 5, 2011, from <http://www.scribd.com/doc/39391023/Social-Media-Wave-5-OCT2010-Universal-McCann>.
- [46] Venkatesan, R. & Kumar, V. (2004). A customer lifetime value framework for customer selection and resource allocation strategy. *Journal of Marketing*, Vol. 68, No. 4, pp. 106-125.
- [47] Wangenheim, F. v. & Bay on, T. (2004). The effect of word of mouth on services switching. *European Journal of Marketing*, Vol. 38, No. 9, pp. 1173-1185.
- [48] Webster, J. & Watson, R. (2002). Analyzing the past to prepare for the future: writing a literature review. *MIS Quarterly* Vol. 26, No. 2, pp. xiii-xxiii.
- [49] Winer, R. (2009). *New Communications Approaches in Marketing: Issues and Research Directions*. *Journal of Interactive Marketing*, Vol. 23, No. 2, pp. 108-117.