

SOCIAL MEDIA NETWORKING AND THE IMPACT IT HAS ON ENTERPRISE APPLICATION SOFTWARE

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ABSTRACT

Social Media networking has become an integral part of daily life for both individuals and organizations. This paper will look at how Social Media plays a vital role in organizations. It will show how corporations use these Social Media networking websites, and how it correlates to their Enterprise Application Software including Customer Relationship Management and Enterprise Resource Planning systems. In addition, it will explain how corporations are growing their Social Media presence by acquiring other corporations and companies. A summary of results from a study conducted on the views of business professionals with regard to Social Media will also be presented.

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KEYWORDS: Social Media Networking, Enterprise Application Software, Customer Relationship Management (CRM), Enterprise Resource Planning (ERP)

INTRODUCTION

This paper will look at how Social Media plays a vital role within organizations. Organizations use Enterprise Application Software to run their companies. Customer Relationship Management (CRM) and Enterprise Resource Planning (ERP) are two integral components of Enterprise Application Software. Currently, Social Media has at least 3.03 billion active networking users. (Smith, 2017) The correlation between Social Media and Enterprise Application Software is an important topic due to the number of active users. Social Media advertising spending reached \$24 billion in 2015 according to research firm eMarketer. (Perlberg, 2015).

The current state of literature addresses Social Media networking in terms of how it is affecting activism, bullying, and political topics. This paper contributes to the current literature by addressing how Social Media networking impacts organizations. Organizations are acquiring other companies to expand and enhance their Social Media presence. In addition, this paper looks into the connection between Social Media networking sites and Enterprise Application Software addressing some of the advantages that can be gained by organizations. The impact of Social Media on some of the modules within Enterprise Application Software systems will be detailed. This paper will include results from a study conducted on business professionals with regard to their awareness of Social Media and the impact it has on business.

LITERATURE REVIEW

The focus of discussion in this paper will be Social Media networking. "Social networking sites are applications that enable users to connect by creating personal information profiles, inviting friends and colleagues to have access to those profiles, and sending e-mails and instant messages between each other. These personal profiles can include any type of information, including photos, video, audio files, and blogs." (Kaplan and Haenlein, 2010) Social Media was first introduced as Web 2.0. Some examples of Web 2.0 were web tools such as blogs, wikis and other virtual worlds. (Parise and Guinan, 2008) Kaplan

and Haenlein's (2010) quote references personal information profiles, though the same is also valid for business information profiles. "Social media platforms enhance the power of online communities in four ways: They promote deep relationships, allow fast organization, improve the creation and synthesis of knowledge, and permit better filtering of information." (Kane et al., 2009).

Social Media plays an intriguing role in combination with Enterprise Application Software. To run efficiently and effectively a company's Enterprise Application Software must run a couple of core processes. The following systems are frequently used: Customer Relationship Management (CRM) and Enterprise Resource Planning (ERP). These systems must be connected to each other to be effective. The definitions of CRM and ERP follow. A Customer Relationship Management system identifies business opportunities and new sales leads as well as streamlines the sales process and reduces repetitive work. It allows for the automation of marketing processes, for example, email or online advertising campaigns. It is also capable of managing social media accounts. (Burnson, 2016) Sales, marketing, and business development professionals keep track of customers and their purchasing patterns by using a Customer Relationship Management system. "Enterprise Resource Planning is defined as an integrated computer-based system that manages internal and external organization resources. These resources include tangible assets, financial resources, materials, and human resources. At the same time, ERP is an application and software architecture that facilitates information flows between various business functions inside and outside an organization and, as such, is an enterprise-wide information system. Using a centralized database and operating on a common computing platform, ERP consolidates all business operations into a uniform system environment." (Radovitsky, 2004).

The primary function of the Customer Relationship Management system is to run the Sales and Marketing modules. The Enterprise Resource Planning system is responsible for running the following modules: Finance & Accounting, Human Resources Management, and Supply Chain Management including Inventory and Purchasing. Additionally, some of these modules have sub-modules. For example, Finance & Accounting contains General Ledger, Accounts Payable and Accounts Receivable. The information is continuously flowing across each department, and the business can make decisions based on the flow of transactions in one system and their databases. By using the Enterprise Application Software, the business users can fast-track month end processing and reporting.

The different modules within the CRM and the ERP systems correlate with Social Media networking sites. The information herein will focus on how the following modules connect Social Media to organizations. The emphasis will be on the Sales and Marketing, Finance & Accounting, Human Resources Management, and Supply Chain Management modules. Social Media is big business. It is having a substantial impact on Enterprise Application Software.

The Customer Relationship Management system of the Enterprise Application Software assists the company within the Sales and Marketing departments. Social Media is often used to gather data about customer segments. Companies use this data to target different demographics for their products and services. Organizations use Social Media sites to discover which goods and services reflect the preferences within each demographic. They can look closely at specific criteria, for example, a particular age group or a distinct location. Social Media helps provide organizations with valuable metrics. It enables organizations to save money on market research. The use of Social Media allows organizations to connect more frequently with their customers for feedback. Customers can send messages quickly and post their feedback on Social Media sites such as Twitter and Facebook. With Social Media, marketers have the chance to network with thousands of customers or potential customers and get to know and trust each other. (Woodcock and al, 2011) A marketing manager's activities should include looking at Social Media to: "1) Facilitate users in generating content, 2) focus on building a community, 3) ensure authenticity of the message, and 4) look for marketing opportunities through experimentation." (Parise and Guinan, 2008).

Organizations are buying ad space on Social Media with the hope that the users will click on these ads promoting a sale and therefore, generate higher revenue for the organization. At the click of a button, the following departments: Sales, Marketing, Finance & Accounting, Human Resources, and Supply Chain all reap the benefits of the integration with CRM. (Sumner, 2005) By paying to advertise on Social Media sites, organizations hope this will bring in new customers who will positively impact the Sales and Marketing modules. The CRM system will store the new information in the database for future opportunities to do business. Research shows that Social Media has an impact on the sales domain in two ways, first by allowing a method of communicating with customers, thus allowing for a prompt response from a salesperson and second, it implies that there will be greater customer satisfaction. (Agnihotri, et al., 2016) The Sales and Marketing departments have a direct impact on the Enterprise Resource Planning system, which in turn affects the Finance & Accounting, Human Resources, and Supply Chain departments. Cash, Accounts Payable, Accounts Receivable, and General Ledger including Consolidation are just a few of the sub-modules within Finance & Accounting. Social Media impacts these modules in different ways. The Enterprise Resource Planning system is the back-office system that helps an organization function. Social Media networking sites, such as Facebook, mention that they do not sell an individual's data to advertisers. The question to ask is, if Facebook does not sell users' data then where does the revenue come from for Facebook and other Social Media sites? Facebook makes money because it allows a platform for advertisers to target people based on personal data (including pictures) that users post to Facebook's website. (Weissman, 2018) The Social Media sites control the information provided by users; however, they sell access to the users' newsfeeds to the advertisers. "Advertisers pay to reach an audience based on several factors, such as geographic location, particular interests or characteristics, and behaviors—including the use of other online services." (Castro, 2018).

The advertising revenue for Facebook and Google will reach \$65 billion in 2018 with a 58 percent market share. (Spangler, 2018) The advertising revenue has a direct impact on the Finance & Accounting modules such as Cash and Accounts Receivable for these companies. The advertiser will consider this a cost of doing business. This expense will impact the advertiser's Cash and Accounts Payable modules.

Within the General Ledger module, there is a sub-module called the Consolidation module. This module is where intercompany transactions are performed. The Consolidation module helps facilitate the financial statements when a corporation acquires another corporation or company. Intercompany transactions are necessary due to the increased frequency of corporations purchasing other corporations or companies. "An intercompany transaction occurs when one unit of an entity is involved in a transaction with another unit of the same entity. While these transactions can occur for a variety of reasons, they often occur as a result of the normal business relationships that exist between the units of the entity. These units may be the parent and a subsidiary, two subsidiaries, two divisions, or two departments of one entity." (Bline, et al., 2004).

Recently, four significant acquisitions have taken place. Google, Facebook, and Microsoft have acquired other corporations to improve their Social Media presence. In 2006, Google, the Internet's leading search engine, purchased YouTube, an online video site, for \$1.65 billion. (La Monica, 2006) In 2012, Facebook acquired Instagram for a total of one billion dollars in a combination of cash and stocks in Facebook. Instagram allows users to share photos from an Apple device or an Android device. Instagram had 30 million users at that time. (Upbin, 2012) By April 2017, that number expanded to approximately 700 million active users on Instagram. (Zhan, 2018) In June 2013, Google acquired Waze Limited, a provider of a mobile map application, which offers turn-by-turn navigation, and real-time traffic updates powered by incidents and route information submitted by the users of the system. (Bae, 2014) This Social Media navigation application cost Google \$966 million. (Kerr, 2013) In 2016, Microsoft saw that it was advantageous to purchase LinkedIn. The vision of LinkedIn is to "create economic opportunity for every member of the global workforce." (LinkedIn.com) Microsoft saw an opportunity to integrate their Enterprise Resource Planning system with LinkedIn. Microsoft announced the purchase of LinkedIn in June 2016 and closed the deal in December 2016, for \$26.2 billion. (Greene, 2016).

The Human Resources module is utilized when an organization is advertising career opportunities. Many companies have links on Social Media sites that link directly to the career opportunities section on their own website. Individuals look at organizations' Social Media sites to learn about career opportunities and to learn more information about the organization. LinkedIn is unique in that career opportunities are posted directly on the site. The LinkedIn mission is to "connect the world's professionals to make them more productive and successful." (LinkedIn.com) Users of LinkedIn look up individuals (i.e., friends and former coworkers) that they are connected to, in order to see if there is an opportunity for a referral or a new career opportunity. (Kietzmann et al., 2011).

New hiring approaches are desirable due to increased staffing costs, time constraints and higher turnover. Organizations are competing for high-quality talent. Millennials and the developing workforce interconnect differently with technology and have different expectations from employers than in the past. Social Media offers another method to acquire personnel. (Phillips-Wren et al., 2016).

Indirectly, human resource personnel use LinkedIn, Facebook and/or Twitter profiles to check on current and prospective employees. As well, job seekers use these Social Media networking sites when they are looking for a new opportunity. They rely on these sites to assist with checking on potential employers and obtaining information. One of the features available is a salary comparison tool. The Social Media site Glassdoor provides an opportunity for users to share experiences (positive or negative), benefits, salaries, thoughts on day-to-day functions and other information that may be useful to individuals who are looking to join a particular company. This leads to extensive advances in the workforce, such as more equitable pay and more efficient hiring, which, in turn, leads to improvements for employees. (LayHaye, 2018).

Social Media has also created many new career opportunities for individuals. These opportunities are not exclusive to working for companies such as Facebook and LinkedIn. Other organizations have created new Social Media related roles. These opportunities were not available 15 years ago. An example of this is a "Social Media Manager." (LayHaye, 2018).

Social Media assists the Supply Chain department in various ways. Companies can improve communication with customers, generate interest, reduce operating costs, mitigate risk, increase productivity, and enhance marketplace intelligence. (Rusch, 2014). Through Social Media, customers can connect with organizations to ask questions about different products and services. Customers can ask if an item is available and how much quantity is readily available. They can also inquire when the organization will be receiving more stock. Another significant benefit is that organizations can use YouTube or other Social Media sites to post "How To" videos to help explain their products.

Professional Purchasers use Social Media as a tool to improve collaboration with suppliers, and as a way to increase purchasing performance. (Rozemeijer, 2011). Professional Purchasers will then be able to improve the quality of their decision-making. A Purchaser considering using social media technology should focus on how these technologies incorporate with existing systems to support their organization's capabilities. Building on Social CRM cannot only drive customer engagement, but also improve the organization's overall worth over time. (Wang and Kim, 2017).

The CRM and ERP systems are the backbone of an organization. The impact of Social Media on Enterprise Application Software is evident in the above examples. The ability to utilize the information gained from Social Media is more important than just the number of "likes" they receive or the number of "followers" the organization has on one or across numerous Social Media sites.

DATA AND METHODOLOGY

A study, conducted in February 2018, was used to determine the awareness of business professionals with regard to Social Media. The study was also used to gauge their knowledge of the impact it has on Enterprise Application Software. When the study was distributed to each of the 50 participants, they were asked not to research information on any of the questions by internet searches before answering. As well, they were asked not to disclose their responses to one another. The response rate was 100 percent. The study included the following questions: Circle any of the Social Media sites you have heard about; Circle any Social Media sites that you use; Have you ever clicked on an advertisement on a Social Media site?; Have you ever used Social Media to inquire about a product?; Do organizations post job opportunities on Social Media? A copy of the study can be viewed in the Appendix.

RESULTS

Table 1 shows the results of the first question, asking which Social Media networking sites the participants had heard about. All participants had heard about Facebook, YouTube, LinkedIn, and Twitter. It is interesting to note that Waze had the lowest percentage of familiarity with only 67 percent of respondents having heard of it.

Table 1: Responses from the Study on Social Media, Inquiring Which Sites Participants Have Heard About

Facebook	Waze	YouTube	Google+	LinkedIn	Twitter	Snapchat	Yelp
50	33	50	41	50	50	48	44

All participants had heard about Facebook, YouTube, LinkedIn and Twitter.

The next question addressed which Social Media networking sites the participants use. The results were different than expected. The top Social Media site was YouTube, chosen by 80 percent of those studied. Twenty-four percent of participants use Twitter, and surprisingly, four percent use none of the sites. Detailed results can be viewed in Table 2 below.

Table 2: Responses from the Study on Social Media, Inquiring Which Sites Participants Use

Facebook	Waze	YouTube	Google+	LinkedIn	Twitter	Snapchat	Yelp	None of These Sites
38	16	40	17	32	12	16	20	2

Eighty percent of participants use YouTube while only 24 percent use Twitter. Four percent use none of these sites.

The survey questions also show the impact Social Media sites have on Enterprise Application Software. In one question, the participants were asked if they have clicked on an advertisement on a Social Media site. This question and the responses show the connection between the Customer Relationship Management system and Finance modules within the Enterprise Resource Planning system. The results posted in Table 3 Panel A, show two-thirds of the participants have clicked on an advertisement.

The next question asked if the participants have used Social Media to inquire about a product. Results are presented in Table 3, Panel B. This question shows the correlation between the Customer Relationship Management system and Supply Chain module in the Enterprise Resource Planning system. Table 3 Panel B shows more than half (60 percent) of participants have inquired about a product or service.

The final question was regarding organizations posting job opportunities on Social Media. It shows the impact on the Human Resource module within the Enterprise Resource Planning system. The majority of

participants (86 percent) answered the question regarding if career opportunities are posted on Social Media, with "Yes." Results are displayed in Table 3 Panel C.

The findings show that 100 percent of business professionals studied have heard of the eight different Social Media networking sites listed in the study, while 96 percent use Social Media. Sixty-six percent have clicked on an advertisement, and 60 percent have inquired about a product or service on a company’s Social Media profile. The study also revealed that 86 percent think that organizations post career opportunities on Social Media. The large percentage of participants responding that they are active on Social Media and that they are using the tools available on those sites, demonstrates just how powerful Social Media is and the positive impact that Social Media is having on organizations and the impact it has on Enterprise Application Software.

Table 3: Responses from the Study on Social Media.

Panel A: Have Participants Checked an Advertisement on a Social Media Site?	
Yes	33
No	17
Panel B: Have Participants Used Social Media to Inquire about a Product?	
Yes	30
No	20
Panel C: Do Participants Think Employers Post Job Opportunities on Social Media?	
Yes	43
No	7

Sixty-six percent of users have clicked on an advertisement on Social Media. Sixty percent of users inquired about a product on Social Media. Eighty-six percent participants answered that there are career opportunities posted on Social Media.

CONCLUDING COMMENTS

Social Media is having a positive impact on individuals and organizations on a daily basis. This paper discussed how organizations are using Social Media networking sites. It also discussed the impact Social Media has on Enterprise Application Software such as Customer Relationship Management and Enterprise Resource Planning systems. It shows how corporations are growing their Social Media presence by acquiring other corporations and companies. This paper was written to provide additional literature to help increase the awareness of the impact Social Media is having on Enterprise Application Software. A need for information is evident from the results of a study distributed to 50 business professionals in February 2018. The study included in this paper shows a substantial increase in users compared to the Pew Research study. The study from February 2018 shows that 96 percent of business professionals studied use Social Media. The Pew Research study, in 2015, on American adults, showed only 65 percent of those studied used Social Media networking sites. (Perrin, 2015). Future research can be done to look into the privacy of Social Media and what users, organizations, and government need to be aware of and how concerns can be addressed. Social Media networking sites have become an integral part of organizations. It is essential to recognize the impact of Social Media on Enterprise Application Software.

APPENDIX

Table 3 Questions

No.	Question	Options
1	Circle any of the Social Media sites you have heard about.	Facebook Waze YouTube Google+ LinkedIn Twitter Snapchat Yelp Never heard of Social Media
2	Circle any Social Media sites that you use.	Facebook Waze YouTube Google+ LinkedIn Twitter Snapchat Yelp None of these sites
3	Have you ever clicked on an advertisement on a Social Media site?	YES NO Never heard of Social Media
4	Have you ever used Social Media to inquire about a product?	YES NO Never heard of Social Media
5	Do organizations post job opportunities on Social Media?	YES NO Never heard of Social Media

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BIOGRAPHY

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