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FIRM CELEBRITY, REPUTATION AND PERFORMANCE: A SOCIAL MEDIA PERSPECTIVE

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Abstract

Firm celebrity and reputation are considered as valuable intangible resources leading to competitive advantages. Past research usually uses indirect measures, such as Fortune ratings or questionnaire surveys to examine the relationship between celebrity and reputation with firm financial performance. The follow-ship on microblogging services, such as Twitter, provides us an opportunity to measure the two assets directly. Constructing firm celebrity as the number of followers a firm has and firm reputation as the PageRank score of the firm, we discovered that both reputation and celebrity derived from social media have shown negative effects on firms' return on assets, but have positive relationships with market capitalization. This is to say, despite of their relative inabilities to generate profits, the management of firms with high reputation and level of celebrity achieved higher market values, which is one of the most important goals for all companies. Furthermore, we also compared the different effects between reputation and celebrity on firm financial performance. The results showed that the level of celebrity has a stronger positive relation with market capitalization than firm reputation. On the other hand, firm reputation has a stronger impact on cost of goods sold than celebrity.

Keywords: Social Media, PageRank, Firm Reputation, Firm Celebrity

1 INTRODUCTION

Firm celebrity and reputation, which derive their value from favorable collective perceptions, are considered as valuable intangible resources leading to competitive advantage (Deephouse, 2000; Rindova et al., 2006; Hall, 1992; Pfarrer et al., 2010; Lange et al., 2010). According to a resource-based view, celebrity and reputation are rare resources difficult to imitate, which may achieve sustained superior financial performance (Roberts and Dowling, 2002). Reputation not only helps firms be distinguished from competitors, but also reduces information asymmetry and consumer uncertainty(Boyd et al., 2009). Similarly, there are discoveries on a high level of firm celebrity can increase the economic opportunities available to a firm (Rindova et al., 2006).

One of the biggest issues in reputation and celebrity research is that they are seldom measured directly (Rindova et al., 2005; Deephouse, 2000). The most common approach to measure reputation and celebrity is via media. Reputation, as a multidimensional construct, is often measured by third-part ratings, such as "Fortune Most Admired Companies" list. Similarly celebrity is also often assessed based on media coverage, i,e., a firm with a better media coverage is considered to have a higher level of celebrity (Rindova et al., 2006; Kjaergaard et al., 2011).

This paper takes the advantages of social media and proposes direct measurements of firm reputation and celebrity. Social media platforms, particularly microblogging services, allow users to follow each other. Such "follow-ship" represents a social approval between the followers and the followees. This study derive firm celebrity from the attractiveness of a firm, and firm reputation from the centrality of a firm in the firms' social network. More specifically, We first identify the NYSE and the NASDAQ listed firms' verified accounts from Twitter. Then we measure their celebrity as the number of followers a firm has and adopt PageRank (PR) algorithm, a well-recognized reputation system (Jøsang et al., 2007), to calculate firm reputation. Unlike third party ratings, our measurements are direct assessment because there is no conventional media involved. We then empirically test the relationships between celebrity, reputation and firms' financial performance. The results prove that firms can financially benefit from both of them as valuable assets.

Another aspect of current research has brought our attention is that less focus has been given on the specific effects of the two assets (Pfarrer et al., 2010; Rindova et al., 2005). Much work has been carried out to examine the influence of reputation on firm performance, while less research has focused on firm celebrity. Regretfully, there are few studies concentrated on comparing the effects of the two assets. This paper empirically compares the impact of the two assets on key firm financial performance indicators, including return on assets, market capitalization and costs of goods sold. The results show that firm reputation has better influence on costs of goods than celebrity, but has less impact on market capitalization.

The rest of the paper is structured as follow: Section 2 reviews related work, which is followed by Section 3 that describes the data and measurements. Section 4 presents the results and finally Section 5 summarizes the paper.

2 LITERATURE REVIEW

As intangible resources leading to sustained competitive advantages, firm reputation and celebrity have received increasing attention in management area (Barney, 1991; Deephouse, 2000; Rindova et al., 2010; Lange et al., 2010). Much research has found a positive relationship between reputation and firm financial performance (Lange et al., 2010). For example, reputation has been proved to have positive effect on firm's profitability (Deephouse, 2000; Roberts and Dowling, 2002). Benjamin and Podolny (1999) discover that firm reputation has positive effect on prices, i.e., high-status affiliations increase price premiums for reputation. Pfarrer et al. (2010) find higher reputation firms were less likely to announce positive earnings surprises, but experienced greater rewards for positive surprises. Firm celebrity has attracted less attention, but both theoretical and empirical research has shown that celebrity also has positive effects on firm financial performance (Rindova et al., 2006; Pfarrer et al., 2010).

Much of the reputation and celebrity research has focused on estimating the general effects of the two assets, and has given little consideration on whether the specific effects of them may vary from each other (Pfarrer et al., 2010; Rindova et al., 2006). By examining firm reputation and celebrity's effects on the likelihood that a firm announces a earnings surprise, Pfarrer et al. (2010) find that high reputation firms are less likely, and celebrity firms are more likely to announce positive surprises, compared with ones without these assets.

Another interesting character of reputation and celebrity research is that both of these two assets are seldom measured directly (Rindova et al., 2005; Deephouse, 2000). The measurements of firm reputation in use are often based on third-party ratings and rankings (Lange et al., 2010). The most commonly used source was "Fortune Most Admired Companies" list (e.g., Orlitzky et al., 2003; Wagner et al., 2012). There are complains against such measures, arguing that assessing reputation based on surveys of key respondents has the possibility that respondents simply are tracking firms' previous financial performance, therefore leading the measure to be equivalent to a measure of reputation for financial performance. Furthermore, there are selection bias from Fortune, who selects the base companies to be rated merely by their sizes. Celebrity, which has been less studied, is usually measured by companies' media coverage (Rindova et al., 2006; Kjaergaard et al., 2011; Pfarrer et al., 2010). In other words, a firm has higher media exposure is considered to have a higher level of celebrity.

The emergence of social media, which have revolutionized the ways organizations relate to the

public and the ways people communicate (Aral et al., 2013), hints an possible solution for the measurement of celebrity and reputation. With information obtained from the source and easier to be quantified, social media has been widely studied by researchers as an indicator of firm financial performance already. For example, using sentiment analysis, Bollen et al. (2011) find that the public's mood on Twitter can predict the Dow Jones Industrial Average. Yu et al. (2013) suggest that overall social media metrics have a stronger relationship with firm stock performance than conventional media, and Luo et al. (2013) find that social media metrics are significant indicators of firm equity value. Using fan page data from Facebook, Goh et al. (2013) find that, in general, user-created content has a bigger impact than firm-created content on firm profits. Rishika et al. (2013) report that the frequency of customer visits leads to an increase in a firm's financial outcome. Based on a four-year period and using data from 6 markets and 15 firms, Tirunillai and Tellis (2012) conclude that the number of consumer reviews is the strongest positive factor affecting firms' abnormal returns and trading volume.

This paper takes a further step to utilize firm social media metrics to assess their reputation and level of celebrity directly, furthermore their effects on firm performance will be examined. There are also efforts on comparing the effects of the two assets.

3 MEASUREMETNS AND DATA

3.1 Firm reputation measurement

The process of firm reputation measurement is a de facto online reputation system, which collects and aggregates opinions toward an object (Liu and Munro, 2012). The central part of the measurement conducted by our work is the PageRank (PR) algorithm, which processes and measures firm reputation on social media platforms. This algorithm is well known in information system and social network area. Even Twitter itself has developed its "Who to Follow" service based on PR as well (Gupta et al., 2013).

PR is a link analysis algorithm. Take Twitter as an example, it allows users to follow each other, such follow-ship therefore builds a social network among the firms. A firm's PR score is calculated by taking account of the number of followers and the popularity of these firms. Its core idea is that a popular firm's follow action is worth more than a less popular one's.

As indicated in the previous sections, we first collected the IDs of the "followings" (who the firm are following) of each firm. Then we filtered the results with Twitter IDs of public firms, which in turn forms a whole social network of listed firms on Twitter. For example, if firm B is in the following list of firm A's, but A is not in the following list of B's, then it shows A follows B, but B does not follow A, indicating there is a link/citation from A to B. If A and B are both in each

other's following list, the follow-ship is then bidirectional.

The PR score for each firm can be calculated as follows (Page et al., 1999):

$$PR(f_i) = \frac{1-d}{N} + d \sum_{f_j \in M_{f_i}} \frac{PR(f_j)}{L(f_j)}$$

It indicates that the PR score of firm f_i depends on the PR scores of each firm (f_j) that follows f_i, divided by the number of followings of f_j. d denotes to the damping factor, which is set as 0.85.

3.2 Firm celebrity measurement

Firm celebrity has two defining characteristics: the public's attraction and positive emotion (Rindova et al., 2006). The follow action from a user to a company account on Twitter shows their interests and fondness of the firm (Kaplan and Haenlein, 2011). Hence, the number of followers of a firm can be regarded as a direct measurement of the level of firm celebrity. The fact that the most followed accounts on Twitter are occupied by individual celebrities, such as Katy Perry, Lady Gaga and Barack Obama, can be taken as an evidence supporting this measurement. Thus, we use the number of followers (FO) as the measurement of firm celebrity.

3.3 Firm performance measures

We choose three widely used measures to estimate firm performance: return on assets (ROA) as accounting-based measure, market value(MV) as market-based measure, and cost of goods sold (COGS) as a cost indicator.

3.3.1 *Return on Assets*

ROA, the ratio of net income to total assets, is a very common measure on the profitability of a firm (Deephouse, 2000; Bharadwaj, 2000; Cassar, 2011; Abdolmohammadi, 2005; Pfarrer et al., 2010). It measures how well a firm utilizes its assets to generate profit related to its total assets.

Previous work argues that intangible assets, such as reputation and intellectural capital, have positive impact on firm's ROA (Villalonga, 2004; Roberts and Dowling, 2002; Deephouse, 2000; Abdolmohammadi, 2005). As reputation and celebrity can be considered as intangible assets as well, we explore the relationship between reputation, celebrity and ROA. Model 3.1 is used to estimate the relationship:

$$ROA_i = \alpha + \beta_1 ROA_{(t-1)i} + \beta_2 TA_i + \beta_3 PR_i \tag{3.1a}$$

$$ROA_i = \alpha + \beta_1 ROA_{(t-1)i} + \beta_2 TA_i + \beta_3 FO_i \tag{3.1b}$$

where ROA_i is the ROA for firm i and $ROA_{(t-1)i}$ is the previous quarter ROA for the same firm. The lagged ROA ($ROA_{(t-1)i}$) is included because it controls for unobservables (Deephouse, 2000; Godfrey and Hill, 1995; Roberts and Dowling, 2002). It also reflects how the changes in the independent variables affect the dependent variables (Hitt et al., 1998). Larger firms usually are believed to be more profitable than smaller ones because they are more able to control prices, and have superior efficiency (Deephouse, 2000). So we also use total asset (TA) as a control variable for firm sizes.

3.3.2 *Market capitalization*

Market capitalization (MV) is the total value of the issued shares of a publicly traded company. Differencing from fundamental values of a firm, e.g., total asset, MV represents how investors value the firm. It is also well used in management and financial area to examine the effectiveness of intangible assets (Abdolmohammadi, 2005; Trueman et al., 2000).

MV is well accepted as a function of total asset(TA), sales($SALES$), and book market value(BV) (Abdolmohammadi, 2005; Bowen et al., 2002). Thus we use Model 3.2 to examine PR and FO's impact on MV.

$$MV_i = \alpha + \beta_1 BV_i + \beta_2 SALES_i + \beta_3 TA_i + \beta_4 PR_i \tag{3.2a}$$

$$MV_i = \alpha + \beta_1 BV_i + \beta_2 SALES_i + \beta_3 TA_i + \beta_4 FO_i \tag{3.2b}$$

Being one of the most important and obvious indicators, maximizing MV which in turn enriching the shareholders, is commonly accepted as the ultimate measure of company's success.

3.3.3 *Cost of Goods Sold*

Cost of goods sold (COGS) is the cost incurred in the production of the products. It is not only a proxy for the production costs of a firm, but also represents a firm's unobservable inventory production performance (Dechow et al., 2010; Bharadwaj, 2000). The higher the value at the end of the accounting period, the lower the COGS and therefore the higher the profit (Fight, 2004).

Model 3.3 is used to examine the influence of PR and FO on COGS:

$$COGS_i = \alpha + \beta_1 SALES_i + \beta_2 TA_i + \beta_3 PR_i \tag{3.3a}$$

$$COGS_i = \alpha + \beta_1 SALES_i + \beta_2 TA_i + \beta_3 FO_i \tag{3.3b}$$

COGS is highly related to the sales of the firm, the higher the sales, the higher the COGS. Furthermore, a bigger firm may experience a lower material costs. Thus we use $SALES$ and TA as control variables.

High reputation and celebrity firms may benefit from their influence over other companies on transactions or negotiations with their business partners, which result in a better performance on COGS. In other words, we expect both reputation and celebrity have negative relationships with COGS.

3.4 Data

We first retrieved the list of the companies that are publicly traded on the NYSE and NASDAQ national market from BvD's database, "OSIRIS: Publicly listed companies worldwide". In total, there are $4,389$ American companies. We then use the following criteria to identify whether a company has an official microblogging account. 1) It must be a verified account. It is well known that Twitter provides verification of accounts to establish the authenticity of identities. If a company's account is not verified, its credibility will be in question, as anyone could be behind that account. 2) We take only one account for each firm, and the the product's or department's account is not treated as the firm's account. For example, Microsoft has a number of verified accounts, such as Microsoft, Microsoft News, Microsoft Research, Microsoft Store, and Microsoft Cloud, but the only one verified as "Microsoft" is considered as its official account. In total there are 293 firms have verified Twitter accounts.

A program was written to cooperate with Twitter's API to collect the IDs of the "following" accounts of each firm and other necessary information. The reason we did not generate the network from the followers is that the number of followings is often less than the number of followers (Huberman et al., 2008), which makes the calculation more efficient. Due to the large amount of data and the limitation of the API, the program kept running for two days, i.e., it started from 1st July and finished on 2nd July. The financial data were obtained from COMPUSTAT database. We use the third quarter (calendar year) data of 2013 for all firms. We calculated MV as: $MV = NumberofCommonShares * ClosingPriceoftheStock$

The reasons that we choose to use cross-section data are: 1) Twitter does not record date/time the

follow-ship was built, thus it requires continuous data collection for the time-series data. Under the regulations of Twitter's API, it may take days to collect the network data for all 293 firms. Hence it is not practical to collect data on a daily basis. 2) Cross-section data is sufficient for our research aim, which is exploring whether a firm with higher reputation or level of celebrity has better performance in a similar scenario. 3) There are many studies that use non-time-series data to examine the effect of intangible assets(Tsai and Ghoshal, 1998; Powell and Dent-Micallef, 1997; Zaheer and Bell, 2005). For example, based on cross-section data, Zaheer and Bell (2005) concluded that both firm's innovative capabilities and network structure enhance firm performance. Rindova et al. (2005) test the two dimensions of reputation based on survey data.

4 RESULTS AND DISCUSSION

Table 1 presents the summary statistics of all firms. The numbers of followers range from 288 to $9,596,476$. The firms attracted most followers are: Facebook $(9,596,476)$, New York Times $(8,694,662)$ and Google $(6,319,154)$. Firms' PR scores starts from 0 to 0.036 with a lower standard deviation 0.004. The firms with highest scores are: New York Times (0.0357), Google (0.0303) and Washington Post Co (0.0185). The results suggested that firm celebrity differed among firms ($st.dev. = 923,587.69$), but reputation ($st.dev. = 0.004$) is less various.

	Mean	Std. Deviation	FO	PR	ROA	MV	COGS	TA	SALES	BV
FO	245,409	923,588								
PR	0.003	0.004	.764**							
ROA	0.014	0.025	-.042	-.101						
MV	27,830	53,629	.215**	.260**	.079					
COGS	2,928	8,549	-.003	.067	.007	.628**				
TA	55,829	214,829	-.018	.024	-.073	.459**	.234**			
SALES	4,720	11,463	.022	.101	.020	.759**	.969**	.360**		
BV	11,702	29,532	.059	.124*	-.013	.804**	.529**	.845**	.670**	
ROA_{t-1}	0.015	0.026	.084	.020	.546**	.094	.011	-.075	.021	-.016
*: p<0.05; **: p<0.01										

Table 1: Summary Statistics

Table 2, 3, 4 showed the regression results of Model 3.1, 3.2, 3.3. Standardized coefficient of each dependent variable was reported in order to compare the importance of each variable. Furthermore, standard error were listed in parentheses.

Table 2 showed that the model with PR appears to have a slightly stronger impact ($R^2 = 0.311, p < 0.05$) than the FO model ($R^2 = 0.307, p < 0.05$). Interestingly, contrary to our expectation, both firm celebrity and reputation have statistically significant negative impact on ROA ($Beta_{pr}$ = -0.112

Independent Variable	Model 3.1(a)	Model 3.1(b)
ROA_{t-1}	0.546^{***} (0.049)	0.551^{***} (0.049)
TA	-0.029 (5.81e-09)	-0.033 (5.83e-09)
PR	-0.112^{**} (0.349)	
FO		-0.089^{*} (1.36e-09)
R^2	0.311^{**}	0.307^{**}
*: p<0.1; **p<0.05; ***:p<0.01		

Table 2: Results of PR and FO relationship with ROA

and $Beta_{fo}$ = -0.089). In other words, higher reputation and higher level of celebrity indicate less profitability. One possible reason is that people use social media platform and follow accounts to acquire information, which is why the most attractive accounts on social media are the ones that can provide information, such as media or technology companies. These companies may not have high return on assets. A question can thus be raised: are the abilities of those famous or reputable firms' management exaggerated?

Independent Variable	Model 3.2(a)	Model 3.2(b)
BV	1.215^{***} (0.120)	1.203^{***} (0.118)
SALES	0.162^{***} (0.175)	0.173^{***} (0.173)
TA	-0.627^{***} (0.013)	-0.617^{***} (0.013)
PR	0.103^{***} (353228.012)	
FO		0.127^{***} (0.0014)
R^2	0.838^{***}	0.843^{***}
***: p<0.01		

Table 3: Results of PR and FO relationship with MV

A possible answer lies in Table 3, which presents the results of Model 3.2. Both of Models demonstrated positive effects on MV. This is to say, despite of their relative inabilities to generate profits, the management of firms with high reputation and level of celebrity achieved higher market values, which is one of the most important goals for all companies. This result confirms our assumption that a premium value exists in a higher reputation or level of celebrity.

With a closer look, we can also find that FO model ($R^2 = 0.843$) showed a stronger effect than PR model ($R^2 = 0.838$). The standardized coefficient of PR is $0.103, p < 0.01$ and the coefficient

of FO is $0.127, p < 0.01$. It indicates that the changes of firm celebrity has a stronger effect on marketing capitalization than firm reputation. This hints that, for management, it might be easier to increase a firm's value by getting higher public reorganization, than being more respected among other firms.

Finally, results of Model 3.3 was presented by Table 4. Both model have a same $R^2 = 0.956, p < 0.01$, and as expected, both PR and FO have negative relationship with COGS. Again, PR has a stronger effect than FO, with a coefficient of -0.031, $p < 0.05$ and -0.027, $p < 0.05$. It indicates that firms with a better reputation can gain less cost of goods sold.

Independent Variable	Model 3.3(a)	Model 3.3(b)
SALES	1.021^{***} (0.010)	1.018^{***} (0.010)
TA	-0.133^{***} (0.0005)	-0.133^{***} (0.0005)
PR	-0.031^{**} (28744.354)	
FO		-0.027^{**} (0.000114)
R^2	0.956^{***}	0.956^{***}
**: p<0.05; ***p<0.01		

Table 4: Results of PR and FO relationship with COGS

As expected, the results depicts firm reputation has a better influence on COGS than the level of celebrity. This is because COGS is an indicator of a firm's influences on other firms. A higher reputation from inter-firm circle will have more impact on inter-firm influence than the attractiveness gained from the public.

5 CONCLUSION

Firm reputation and level of celebrity as intangible assets have attracted considerable interest in organizational and strategy research. However, the ways of measuring the two assets have been limited to Fortune ratings and questionnaire surveys. This paper proposed a new approach to measure firm celebrity and reputation directly from social media perspective. Social media, particularly microblogging service platforms, which allow users to follow each other, have therefore constructed a vast user social network over the Internet. Usually people tend to follow the ones they are in favor of, especially when it comes to following firms. Thus, such a social network can illustrate the fondness of firms on the microblogging service platform. The empirical results showed both celebrity and reputation have statistically significant relationship with firm performances. These new measures can be assigned as theoretical anchors for identifying market and

accounting values from social media perspective.

One interesting finding is that both assets have negative relationships with ROA, while have positive effects on MV. This is to say, despite of their relative inabilities to generate profits, the management of firms with high reputation and level of celebrity achieved higher market values, which is one of the most important goals for all companies.

This paper taps into management and strategic literature. Our work not only introduced a new lens to the information systems literature but also demonstrated the complementarity of information systems research with that of other related fields. As this study showed, the analysis of the impact of social media sheds light on how managers and investors should obtain and use information in the financial market.

Another contribution of this paper is that it compared the effects of celebrity and reputation on firm financial performance. Both reputation and celebrity have been widely researched as intangible assets in management and strategy area, however less attention has been made on comparing the influences of the two assets from each other. We discovered that the level of celebrity has a stronger positive relation with market capitalization than firm reputation. This hints that, it might be easier to increase a firm's value by getting higher public reorganization, than being more respected among other firms. On the other hand, firm reputation has a stronger impact on cost of goods sold than celebrity. It may act as a proof on that high reputation firms can benefit from their influence over other companies on transactions or negotiations with their business partners.

Firm celebrity is commonly defined as high level of public attention and the positive emotional responses. This paper assumes that the "following action" conducted by microblogging users presents the attention as well as a positive emotional toward firms being followed. However one may follow a firm without a positive emotion on it. Therefore, our assumption can be challenged by future research with sentiment analysis. Moreover, our study has found that there is a negative relationship between return on assets with firm celebrity and reputation. There are similar previous work that has pointed out reputation and celebrity could be a liability (Wade et al., 2006; Rhee and Haunschild, 2006). Thus, future studies might not be limited to the positive impact of reputation and celebrity, for there is room to explore the negative effects as well.

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References

Abdolmohammadi, M. J. (2005), Intellectural Capital Disclosure and Market Capitalization, Journal of Intellectual Capital 6(3), 397–416.

Aral, S., Dellarocas, C. and Godes, D. (2013), Introduction to the Special Issue–Social Media and Business Transformation: A Framework for Research, Information Systems Research 24(1), 3–13.

Barney, J. (1991), Firm resources and sustained competitive advantage, Journal of Management 17(1), 99–120.

Benjamin, B. A. and Podolny, J. M. (1999), Status, quality, and social order in the california wine industry, Administrative Science Quarterly 44(3), 563–589.

Bharadwaj, A. S. (2000), A Resource-Based Perspective on Information Technology Capability and Firm Performance: An Empirical Investigation, MIS Quarterly 24(1), 169–196.

Bollen, J., Mao, H. and Zeng, X.-j. (2011), Twitter mood predicts the stock market, Journal of Computational Science 2(1), 1–8.

Bowen, R. M., Davis, A. K. and Rajgopal, S. (2002), Determinants of Revenue-Reporting Practices for Internet Firms, Contemporary Accounting Research 19(4), 523–562.

Boyd, B. K., Bergh, D. D. and Ketchen, D. J. (2009), Reconsidering the Reputation–Performance Relationship: A Resource-Based View, Journal of Management 36(3), 588–609.

Cassar, G. (2011), Discussion of the value of financial statement verification in debt financing: Evidence from private US firms, Journal of Accounting Research 49(2), 507–528.

Dechow, P., Ge, W. and Schrand, C. (2010), Understanding earnings quality: A review of the proxies, their determinants and their consequences, Journal of Accounting and Economics 50(2-3), 344–401.

Deephouse, D. L. (2000), Media reputation as a strategic resource: An integration of mass communication and resource-based theories, Journal of Management 26(6), 1091–1112.

Fight, A. (2004), Credit Risk Management, Butterworth-Heinemann.

Godfrey, P. C. and Hill, C. W. L. (1995), The problem of unobservables in strategic management research, Strategic Management Journal 16(7), 519–533.

Goh, K., Heng, C. and Lin, Z. (2013), Social Media Brand Community and Consumer Behavior: Quantifying the Relative Impact of User- and Marketer-Generated Content, Information Systems Research 24(March 2013), 88–107.

Gupta, P., Goel, A., Lin, J., Sharma, A.,Wang, D. and Zadeh, R. (2013), WTF : The Who to Follow Service at Twitter, in the International World Wide Web Conference Committee (IW3C2), pp. 505–514.

Hall, R. (1992), The strategic analysis of intangible resources, Strategic management journal 13, 135–144.

Hitt, M. a., Gimeno, J. and Hoskisson, R. E. (1998), Current and Future Research Methods in Strategic Management, Organizational Research Methods 1(1), 6–44.

Huberman, B., Romero, D. and Wu, F. (2008), Social networks that matter: Twitter under the microscope, First Monday 14(1).

Jøsang, A., Ismail, R. and Boyd, C. (2007), A survey of trust and reputation systems for online service provision, Decision Support Systems 43(2), 618–644.

Kaplan, A. M. and Haenlein, M. (2011), The early bird catches the news: Nine things you should know about micro-blogging, Business Horizons 54(2), 105–113.

Kjaergaard, A., Morsing, M. and Ravasi, D. (2011), Mediating Identity: A Study of Media Influence on Organizational Identity Construction in a Celebrity Firm, Journal of Management Studies 48(3), 514–543.

Lange, D., Lee, P. M. and Dai, Y. (2010), Organizational reputation: A review, Journal of Management 37(1), 153–184.

Liu, L. and Munro, M. (2012), Systematic analysis of centralized online reputation systems, Decision Support Systems 52(2), 438–449.

Luo, X., Zhang, J. and Duan, W. (2013), Social Media and Firm Equity Value, Information Systems Research 24(1), 146–163.

Orlitzky, M., Schmidt, F. and Rynes, S. (2003), Corporate social and financial performance: A meta-analysis, Organization studies 24(3), 403–441.

Page, L., Brin, S., Motwani, R. and Winograd, T. (1999), The pagerank citation ranking: Bringing order to the web, in World Wide Web Internet And Web Information Systems, Technical report, Stanford Digital Library Technologies Project, 1998, pp. 1–17.

Pfarrer, M. D., Pollock, T. G. and Rindova, V. P. (2010), A tale of two assets: The effects of firm reputation and celebrity on earnings surprises and investors reactions, Academy of Management Journal 53(5), 1131–1152.

Powell, T. and Dent-Micallef, A. (1997), Information technology as competitive advantage: the role of human, business, and technology resources, Strategic management journal 18(April 1995), 375–405.

Rhee, M. and Haunschild, P. R. (2006), The liability of good reputation: A study of product recalls in the u.s. automobile industry, Organization Science 17(1), 101–117.

Rindova, V. P., Williamson, I. O. and Petkova, a. P. (2010), Reputation as an Intangible Asset: Reflections on Theory and Methods in Two Empirical Studies of Business School Reputations, Journal of Management 36(3), 610–619.

Rindova, V. P., Williamson, I. O., Petkova, A. P. and Sever, J. M. (2005), Being Good or Being Known: An Empirical Examination of the Dimensions, Antecedents, and Consequences of Organizational Reputation, Academy of Management Journal 48(6), 1033–1049.

Rindova, V., Pollock, T. and Hayward, M. (2006), Celebrity firms: The social construction of market popularity, Academy of Management Review 31(1), 50–71.

Rishika, R., Kumar, A., Janakiraman, R. and Bezawada, R. (2013), The Effect of Customers Social Media Participation on Customer Visit Frequency and Profitability: An Empirical Investigation, Information Systems Research 24(1), 108–127.

Roberts, P. W. and Dowling, G. R. (2002), Corporate reputation and sustained superior financial performance, Strategic Management Journal 23(12), 1077–1093.

Tirunillai, S. and Tellis, G. (2012), Does chatter really matter? Dynamics of user-generated content and stock performance, Marketing Science 31(2), 198–512.

Trueman, B., Wong, M. and Zhang, X. (2000), The eyeballs have it: Searching for the value in Internet stocks, Journal of Accounting Research 38(Supplement 2000), 137–162.

Tsai, W. and Ghoshal, S. (1998), Social capital and value creation: The role of intrafirm networks, Academy of Management Journal 41(4), 464–476.
Villalonga, B. (2004), Intangible resources, Tobins q, and sustainability of performance differences, Journal of Economic Behavior & Organization 54(2), 205–230.
Wade, J. B., Porac, J. F., Pollock, T. G. and Graffin, S. D. (2006), The burden of celebrity: The impact of CEO certification contests on CEO pay and performance, Academy of Management Journal 49(4), 643–660.
Wagner, S., Grosse-Ruyken, P. and Erhun, F. (2012), The link between supply chain fit and financial performance of the firm, Journal of Operations Management 30(4), 340–353.
Yu, Y., Duan,W. and Cao, Q. (2013), The impact of social and conventional media on firm equity value: A sentiment analysis approach, Decision Support Systems 55(4), 919–926.
Zaheer, A. and Bell, G. (2005), Benefiting from network position: firm capabilities, structural holes, and performance, Strategic Management Journal 26(9), 809–825.