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forecast

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Large scale information extraction and integration infrastructure for supporting financial decision making.

Webstreams processing and other semantic technologies for Reputational Risk Measurement and Management in Banks

Giorgio Aprile: Group Head of Operational Risk and Pillar3 Reporting
Gruppo Montepaschi







The Montepaschi Banking Group



- Italy's third largest Banking Group, with about 30,000 employees and 3,000 branches in Italy.
- Serving over 6 million customers.
- 3 brands operating in Italy:
 - Banca Monte dei Paschi di Siena;
 - Banca Antonveneta;
 - Biverbanca.
- In business since 1472 with no interruptions, we pride ourselves in being the <u>oldest bank in the world</u>, yet maintaining strong inclination for product and service innovation...



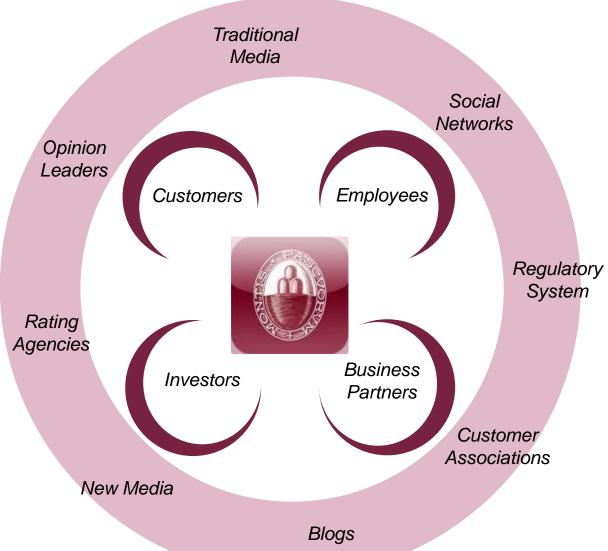


The 'Rocca Salimbeni' building in Siena, Italy, headquarters of Banca Monte dei Paschi di Siena S.p.A.



The reputation ecosystem



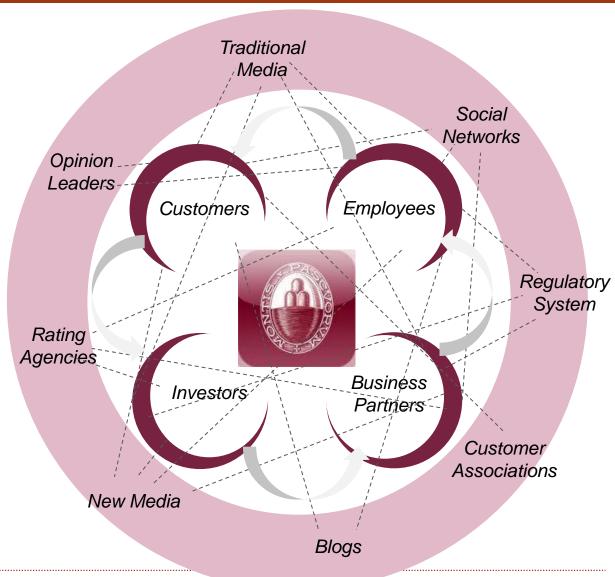






The reputation ecosystem



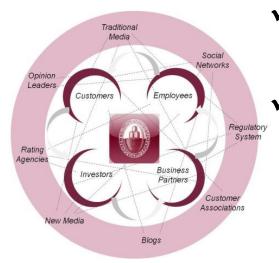






The reputation ecosystem and the internet advent





- ✓ Reputation is a fundamental asset based on a wide network of relations
- ✓ This network represents a delicate ecosystem in which non material concepts like "trust", "reliability", "ethic" are exchanged daily between partners
- ✓ The advent of user-generated content & social media didn't change the essence of the relationship but accelerated in a dramatic way the speed of exchanges in the ecosystem network

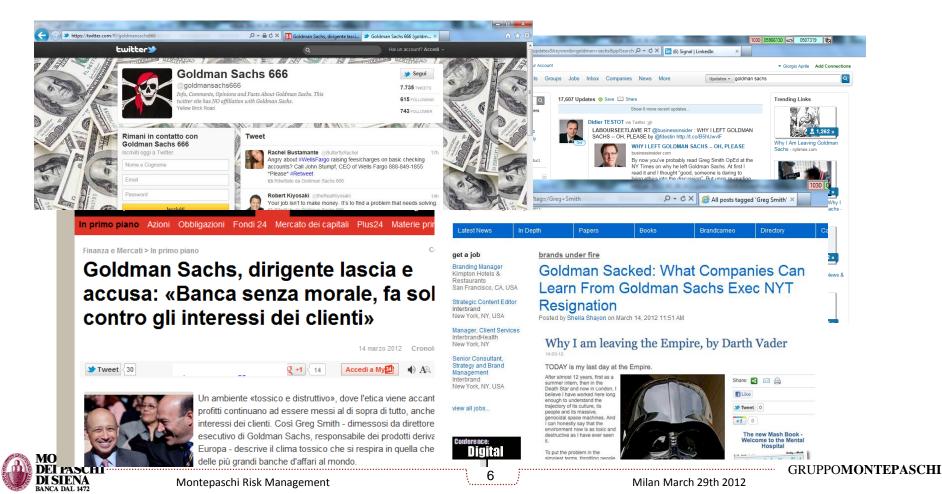




The effect of internet, blogs and social media on reputation disruption



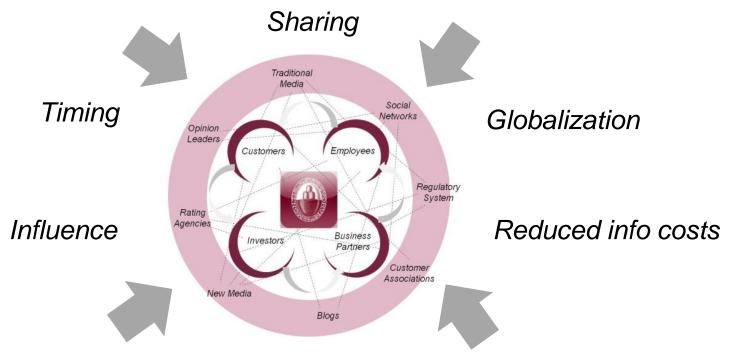
"It takes twenty years to build a reputation and five minutes to destroy it" (Warren Buffet)





The big change introduced by the Web for reputation management





Information quality (?)

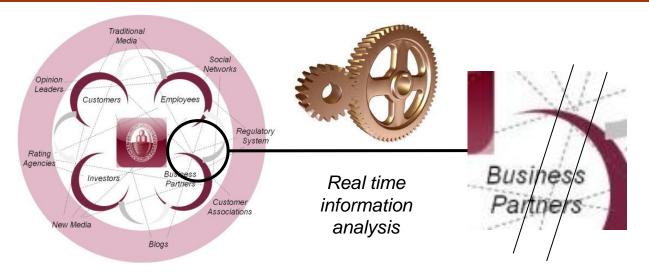
The reputation network faces a new challenge: "Information overflow"





Webstreams processing and other semantic technologies for information extraction





- ✓ Real time control of the reputation ecosystem requires new tools
- ✓ Analysis of electronic unstructured information by webstreams processing and semantic technologies could provide a powerful weapon for reputation monitoring and mitigation actions





A specific focus on Business Partners







Montepaschi Risk Management

- ✓ Reputation of a business partner could have a strong influence on the firm's reputation
- ✓ The Foxconn Apple relationship and the news regarding bad working conditions in the Chinese factory are a typical example of how the internet has a role in people perception



Business Partners in the banking industry (1)





- ✓ Management, brokerage and advisory services are an important fee and commission income for the financial industry in times of minimum interest rate;
- ✓ The current crisis has dramatically changed the risk profile associated to the distribution of third-party services;



- Triple A rating;
- More than 100,000 Italian customers involved;
- More than 3 bln bond and index linked insurance contract sold by Italian banks;
- All the major Italian banks adopted protection schemes to refund their customers, paying high prices to avoid a potential reputation and operational risk.



Business Partners in the banking industry (2)





The Aegean Contagion ...





- Concern about rising government deficits and debt levels across the globe together with a wave of downgrading of European government debt has created alarm in financial markets
- ✓ Fears of a sovereign debt crisis developed concerning some European nations, including European Union members Portugal, Ireland, Italy, Greece, Spain. This led to a crisis of confidence as well as the widening of bond yield spreads and

risk insurance on credit default swaps



Use Case 2: Sentiment extraction and decision support system





Information extraction and sentiment analysis

- √ 30 business partners monitored
- √ 100 different info sources monitored real time
- ✓ Extensive ontology developed for reputational risk



Decision support system for reputational risk management

- ✓ Montepaschi joined the project proposing the application of FIRST techniques to the monitoring of third parties sentiment on the web, social networks and blog
- ✓ The project goal is to develop decision support systems for reputational risk measurement and management, with a specific focus on the reputational risk associated with investment service





Use Case 2: Reputation Index and financial investments



✓ How can the sale of a financial instrument trigger the bank's reputational risk?

Mismatching

Customer portfolio is not anymore in line with his/her risk investment profile!

Performance

The performance is not in line with customer expectations (absolute, benchmark..)

Counterpart Sentiment

News, social networks and media could effect the customer sentiment on a specific counterpart (and related investments)

Customer perception

Volumes

Are asset volumes sold to customers a big part of total assets?

Number of customers

Do a large number of customers hold the product?

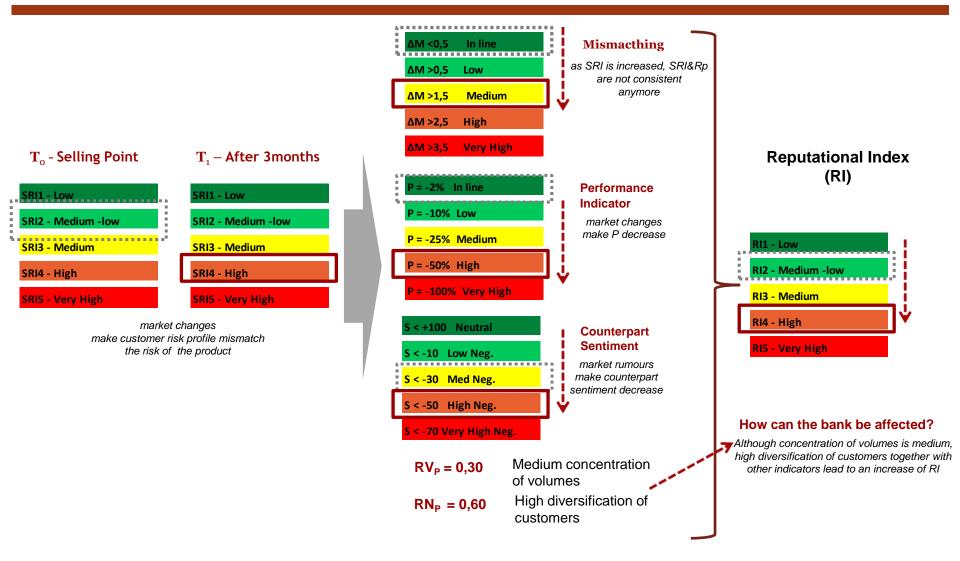
Bank exposure





Use Case 2: The decision support system









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Acknowledgement

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