BUSINESS AND COLLECTIVE INTELLIGENCE LAB

"Using Social Network Analysis and Text Mining to Improve Organizational Performance"

Ludovica Segneri, Andrea Fronzetti Colladon

CONNECTING PEOPLE, INFORMATION & SYSTEMS

Our research builds on **text mining** and **social network analysis** to understand **management, society,** and **human behavior.**

We dive deep with the latest tools, exploring across different disciplines, e.g.:

- BRAND MANAGEMENT
- ORGANIZATIONAL COMMUNICATION
- ORGANIZATIONAL BEHAVIOR
- PEOPLE ANALYTICS
- INNOVATION MANAGEMENT

THE LINK WITH PAST RESEARCH

BRAND AWARENESS → BRAND RECALL, BRAND RECOGNITION ≈ PREVALENCE

BRAND KNOWLEDGE

BRAND IMAGE → TYPES OF BRAND ASSOCIATION, FAVORABILITY OF BRAND ASSOCIATION, STRENGTH OF BRAND ASSOCIATION, UNIQUENESS OF BRAND ASSOCIATION

ANALYSIS SUPPORTED BY:
- DIVERSITY AND CONNECTIVITY
- THE STUDY OF THE SENTIMENT OF BRAND ASSOCIATIONS
- THE CO-OCCURRENCE NETWORK

KELLER'S BRAND EQUITY (1993)

> *Brand importance is at the basis of brand equity, even if it does not automatically translate into it.*

KEY INSIGHTS FROM THE SBS MEASURE

PREVALENCE: Measures how frequently a brand is mentioned in a discourse. The more a brand name is repeated, the more it can be remembered and recognized.
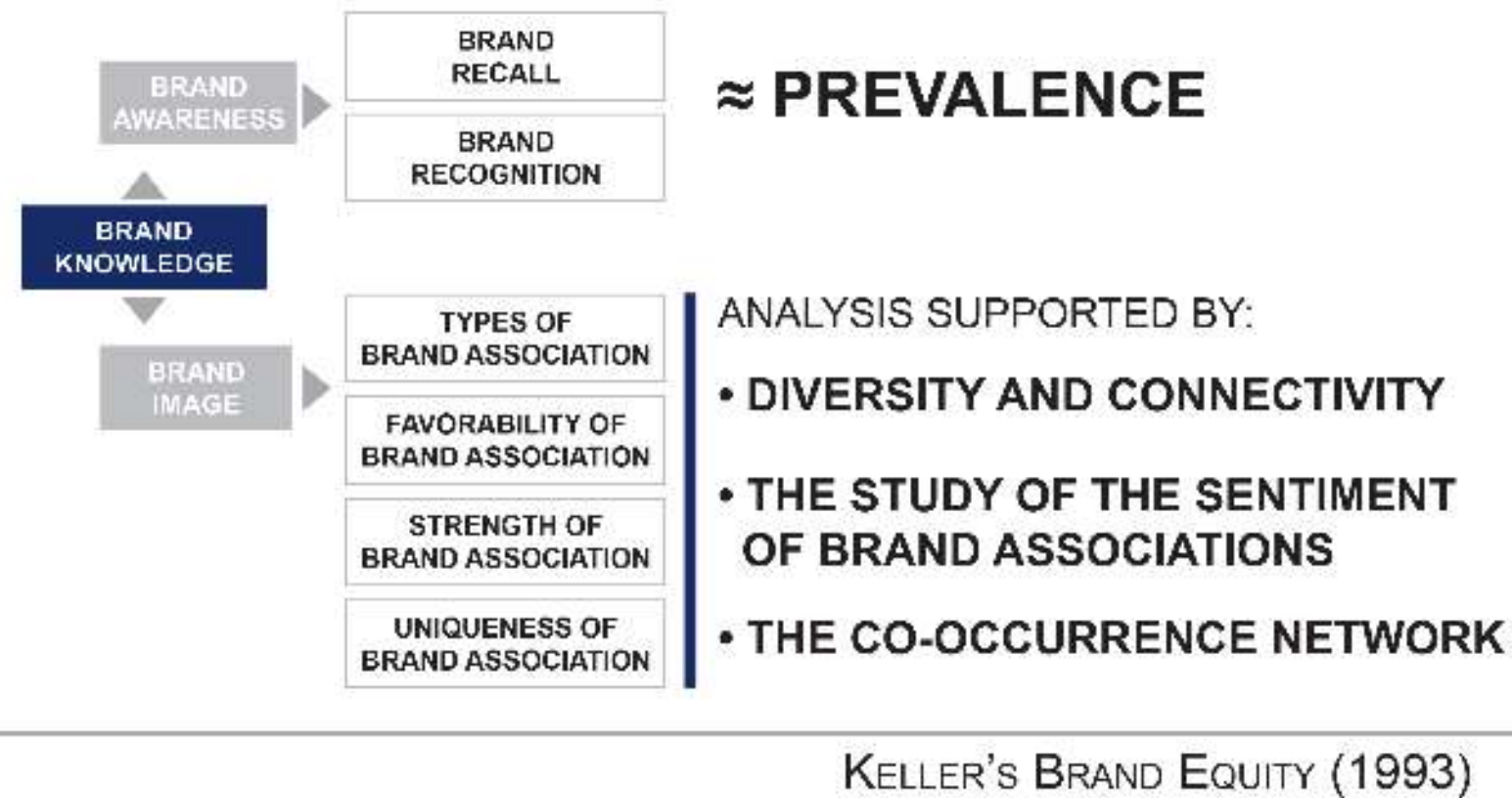
DIVERSITY: Measures the heterogeneity of textual brand associations. More brand associations positively affect brand strength (Grohs et al., 2016).

CONNECTIVITY: Measures the connective power of a brand; its embeddedness in a discourse and ability to link words, potentially related to different discourse topics.

PREVALENCE — SEMANTIC BRAND SCORE — CONNECTIVITY — DIVERSITY

APPLICABLE TO ANY WORD OR SET OF WORDS

1 TEXTUAL DATA COLLECTION

2 REMOVAL OF: PUNCTUATION, SPECIAL CHAR, HTLM TAGS, #, @, STOPWORDS

3 LOWER CASE, TOKENIZATION, STEMMING

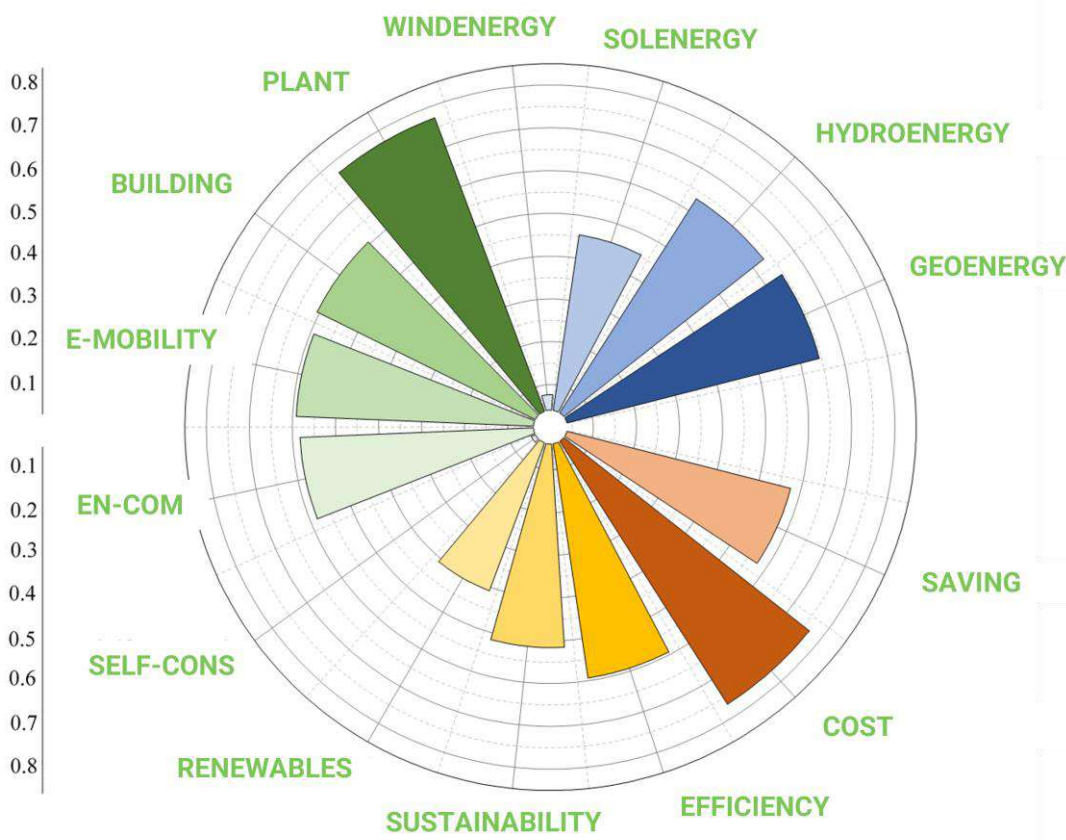**4** FROM TEXTS TO NETWORKS

5 LINK FILTERING (REMOVAL OF UNIMPORTANT ASSOCIATIONS)

Published Articles

TEXT MINING AND SNA FOR SOCIALLY RESPONSIBLE BEHAVIOR: FOSTERING THE ADOPTION OF GREEN TECHNOLOGIES

IMAGE SIMILARITY FOR ENERGY STORAGE

MAIN FINDINGS FOR ENERGY COMMUNITY CASE STUDY

1. EVERY ENERGY COMMUNITY IS STRONGLY CONNECTED WITH THE SOCIAL COMMUNITY AT ITS BASE
2. THE NEWS SHOULD HIGHLIGHT THE CONNECTION BETWEEN SUSTAINABILITY AND THE SOCIAL DYNAMICS OF ENERGY COMMUNITIES, EMPHASIZING THEIR POSITIVE IMPACT FOR BOTH AREAS
3. NATIONAL LAWS AND POLICIES GENERATE MUCH MORE AWARENESS THAN EUROPEAN DIRECTIVES
4. THE ACTIONS OF PUBLIC FIGURES GENERATE A SIGNIFICANT BUZZ IN THE MEDIA ENERGY DICOURSE, BUT NO KEY FIGURE AT NATIONAL LEVEL WAS FOUND TO SUPPORT ENERGY COMMUNITIES
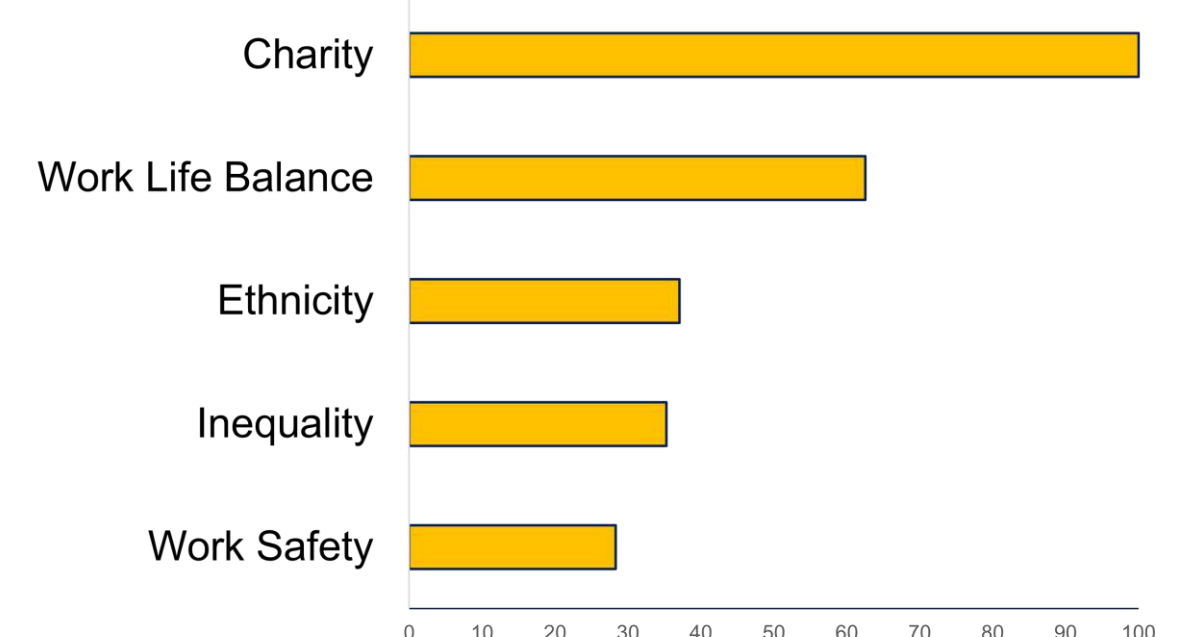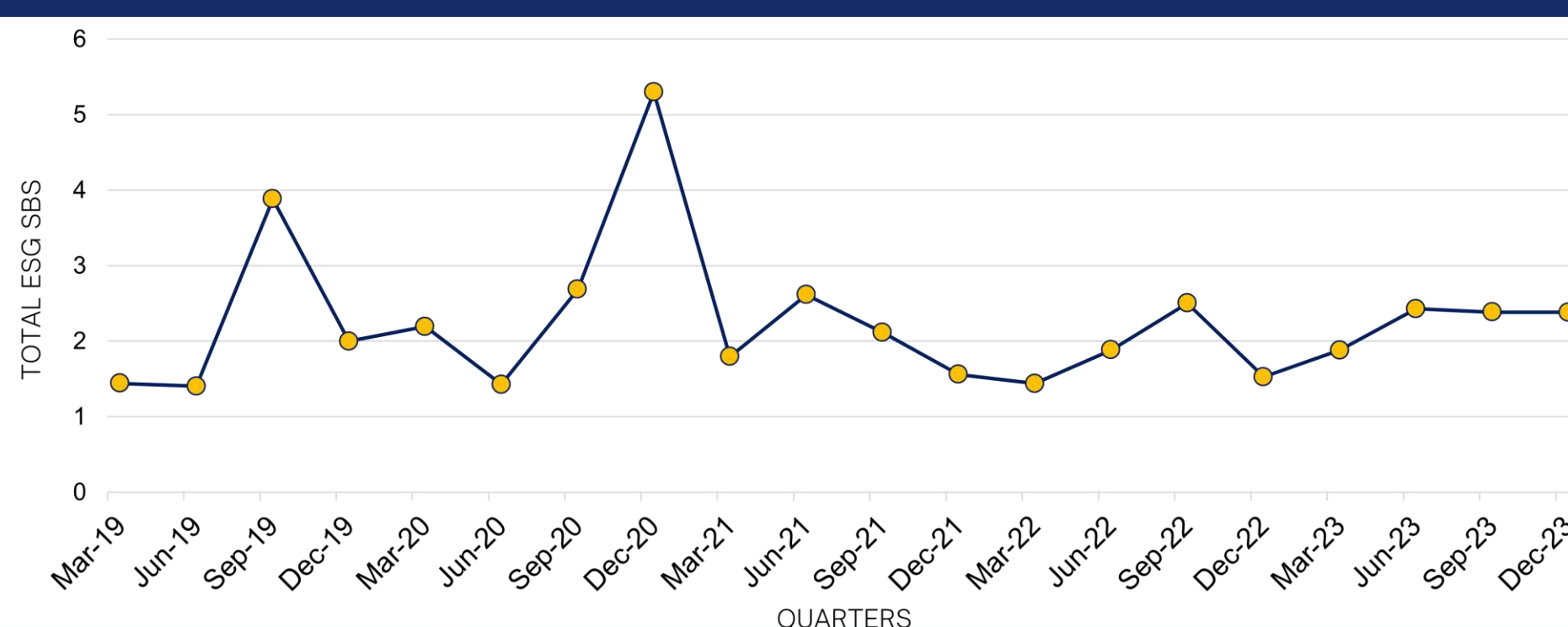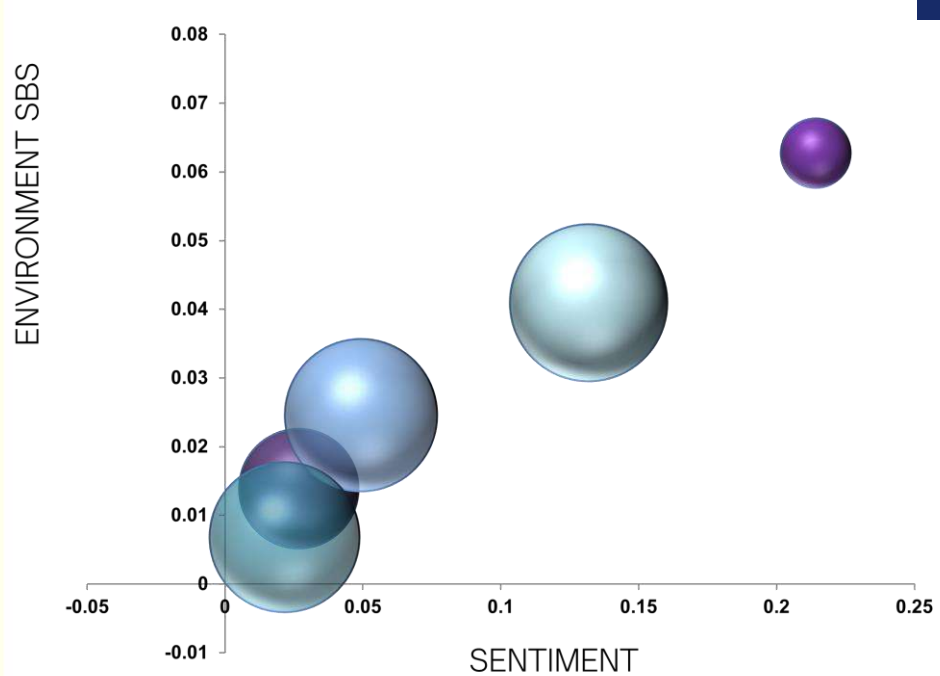5. ECONOMIC ASPECTS PREVAIL IN THE DISCUSSION AROUND ENERGY COMMUNITIES IN ITALY

GASOLINE PRICES AND SNA

Milan, Brescia, Florence, Turin, Naples
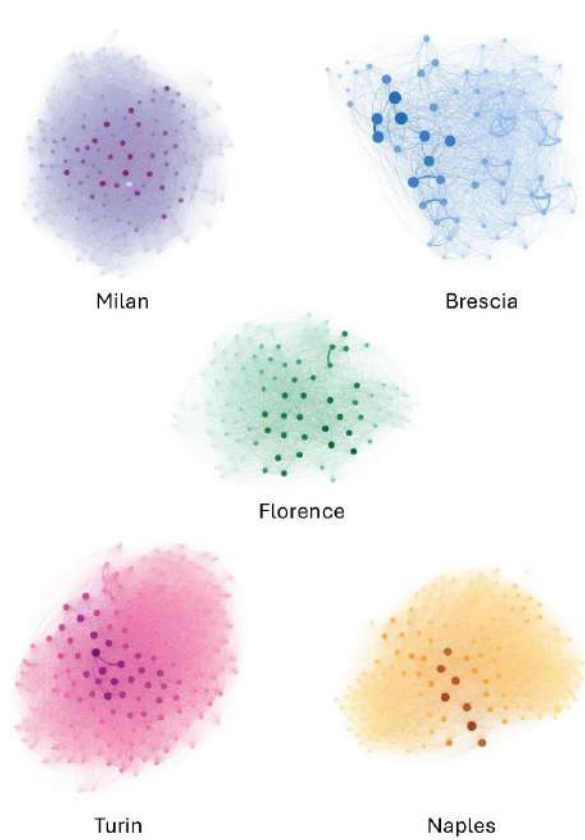
SCAN HERE TO READ THE PAPERS ON YOUR SMARTPHONE

Ongoing research

MAPPING CORPORATE ESG IMAGE: A SEMANTIC IMPORTANCE APPROACH BASED ON MEDIA COMMUNICATION

Charity, Work Life Balance, Ethnicity, Inequality, Work Safety

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FURTHER INFORMATION
- BCINTELLIGENCE.ORG
- SEMANTICBRANDSCORE.COM

BRAND AND BUSINESS INTELLIGENCE IN THE ERA OF BIG DATA