

Smartkarma Machine Readable Research

Background

Founded in 2014, Smartkarma is the leading Independent Investment Research Network that champions research from 300+ leading Independent Research Providers across differentiated content verticals under-represented in traditional wall-street research. Smartkarma serves over 250 global asset managers, across both fundamental and systematic investment strategies.

Machine Readable Research

Smartkarma is able to aggregate and deliver research from across 300+ providers in a machine readable format for systematic investors. Please find below a description of the data set.

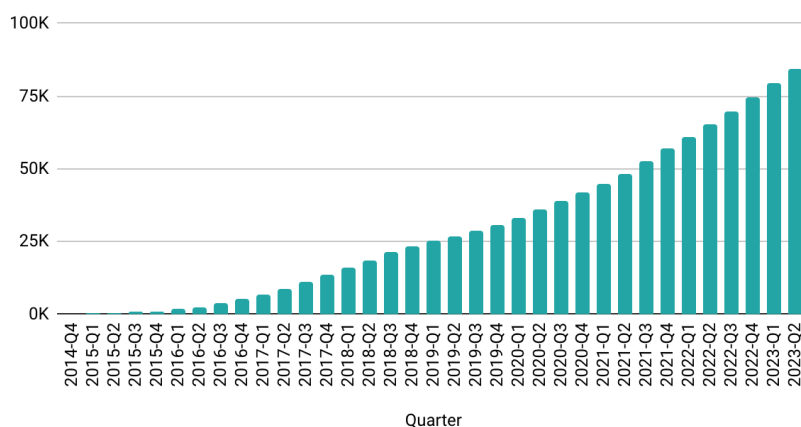
Key Benefits

- Easy ingestion and analysis of leading IRP research summaries and metadata with proven, sustained alpha
- Rich metadata tagging to enable quantitative and systematic analysis, and trading signal generation

Data History

Data Start Date	2016-01-01
Average Reports/Month ¹	1,500

Growth in Insights over time (cumulative)



¹ Based on last 12 months average

Data Delivery

Data Delivery Mechanism	FTP / Email / API (as per client needs)
-------------------------	-----------------------------------------

Data Dictionary

Data Field	Data Type	Description
sentiment	string	Reflects Bullish or Bearish Sentiment
tagline	string	Title of Report
byline	string	200 char elevator pitch
author_id	string	Unique identifier for author of report
company_id	string	Unique identifier for author company
author_rank	string	Based on Smartkarma ranking
Content Vertical	string	E.g. Equity Bottom-Up, etc
published_at	timestamp	Report publishing time
insight_type	string	independent/syndicated
insight_backlink	url	Link to published insight
primary_tagged_entity_isin	string	ISIN of the primary security for report
all_tagged_entities_isins	string	ISIN of all related securities
geo_tags	string	E.g. "Asia Pacific"
sector_tags	string	E.g. "Consumer Discretionary"
country_tags	string	E.g. "Japan"
<i>executive_summary</i>	<i>string</i>	<i>Short summary of report</i>

Data Coverage

Research Reports Distribution

By Content Vertical	
Equity Bottom-Up	47.06%
Event-Driven	12.27%
Thematic (Sector/Industry)	12.25%
Equity Capital Markets	8.59%
Macroeconomics	6.25%
Credit	3.23%
Cross Asset Strategy	3.21%
Technical Analysis	2.00%
Quantitative Analysis	1.58%
ESG	1.22%
FX & Rates	0.82%
Crypto	0.43%
Private Capital Markets	0.42%
Commodities	0.40%
Forensic Accounting	0.24%
Debt Capital Markets	0.05%

By Sector	
Consumer Discretionary	18.20%
Information Technology	15.42%
Financials	13.22%
Industrials	13.01%
Health Care	9.71%
Real Estate	7.07%
Consumer Staples	6.61%
Materials	6.18%
Communication Services	4.47%
Energy	4.23%
Utilities	1.88%

By Country (Top 15)	
United States	19.07%
China	14.75%
Japan	10.44%
India	8.56%
South Korea	6.57%
Singapore	5.93%
Australia	4.83%
United Kingdom	4.23%
Thailand	4.23%
Hong Kong	3.97%
Malaysia	3.06%
New Zealand	2.97%
Indonesia	2.85%
Taiwan	1.38%
Germany	1.11%

By Market Cap	
Small < 2bn	44.39%
Mid 2-5bn	13.93%
Large >= 5bn	41.68%

Stocks Covered

Last 12 months
- Primary Only (Top 20)

Country	Count
United States	1,829
China	607
India	481
Japan	477
United Kingdom	320
South Korea	308
Australia	261
Malaysia	204
Singapore	202
Hong Kong	190
Thailand	133
Indonesia	132
Canada	112
Taiwan	87
New Zealand	66
Vietnam	64
Germany	57
Philippines	54
Pakistan	40
Brazil	35

Last 12 months
- Primary and Secondary (Top 20)

Country	Count
United States	2,883
China	1,726
Japan	1,076
India	786
South Korea	714
Australia	610
United Kingdom	486
Hong Kong	425
Taiwan	345
Singapore	332
Canada	302
Malaysia	268
Indonesia	254
Thailand	217
Germany	156
France	97
Vietnam	93
South Africa	92
Philippines	88
Switzerland	86

All Time
- (Top 20)

Country	Count
United States	9,440
China	5,884
Japan	4,254
Australia	3,260
Canada	2,931
South Korea	2,402
India	2,229
Taiwan	1,920
Hong Kong	1,566
United Kingdom	1,360
Singapore	1,042
Malaysia	1,016
Indonesia	937
Thailand	850
Germany	417
Philippines	308
France	299
Vietnam	290
Sweden	234
Switzerland	223