



TAILOR RESEARCH *at* PENSERRA

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*T*echnology Driven Information Sourcing

Asset managers are looking for more. More than another Research Analyst opining on what direction a stock may be heading. They want transformative market intelligence and distinctive stock insights. By embracing a truly revolutionary technology and approach, Penserra Research can enhance asset managers' competitive edge.


PENSERRA

Introduction

Penserra Research offers two research solutions for investment managers; Customized and Quarterly reports.

Our Customized solution is an outsourced research platform allowing investment managers to get out of the channel check business and instead focus on their core competencies. It is an efficient, cost-effective and scalable technology platform providing analysts access to an industry's participants at a push of a button. Clients tell us the questions to be asked, how many respondents and the targeted respondents. Penserra does the rest. Clients use the platform when they want to, with no minimum service required.

The Quarterly research reports are based on companies Penserra has chosen to follow, paired with basic questions related to those companies that Penserra believes serve the investment community. Questions include what are the changes in price, volume and market share for a particular company, and other company-specific questions.

Penserra uses its proprietary technology platform and statistical techniques to strive for the optimal survey respondents and responses. The platform has thousands of vetted surveyors to reach respondents and ask an exhaustive list of questions. Algorithms tag each respondent and measure his/her performance. Over time respondents are replaced for higher performing ones, constantly improving the survey.

Penserra's research platform employs a compliance friendly mosaic approach, with a technology barrier between the client and the respondent. This mosaic approach is unlike expert-network platforms.

The combination of having a scalable technology platform with the ability to reach respondents quickly, compliance friendly surveys, and the accuracy of the surveys through statistical techniques, have led our customers to increase their usage greatly.

Technology Driven Information Sourcing

Investment managers' core competency is picking stocks with the best risk adjusted return over the long-term. But how do you stay ahead of the triggers behind corrections?

Rather than spend the resources needed to develop sophisticated sampling techniques and technologies, we source data so that investment managers can focus on security selection. Taking advantage of our scalable platform, speed of reaching respondents, and the accuracy of the surveys through statistical techniques, you can exploit your own competitive edge with meaningful market intelligence.

STATISTICALLY RELEVANT

Penserra uses an **algorithmic weighting system** to enhance survey-based data. It ranks respondents' ability to provide consistent, meaningful insight. Using these measures of statistical significance, more or less weight can be applied to respondents' feedback. Over time, the process improves information relevance and predictability.

$$\begin{array}{ccc}
 \text{Today's response} & & \text{Tomorrow's response} \\
 \downarrow & & \downarrow \\
 f(r) \times (r_0) & = & r_1 \pm W \\
 \uparrow & & \uparrow \\
 \text{The Algorithm} & \longrightarrow & \text{The Adjusted Weight}
 \end{array}$$

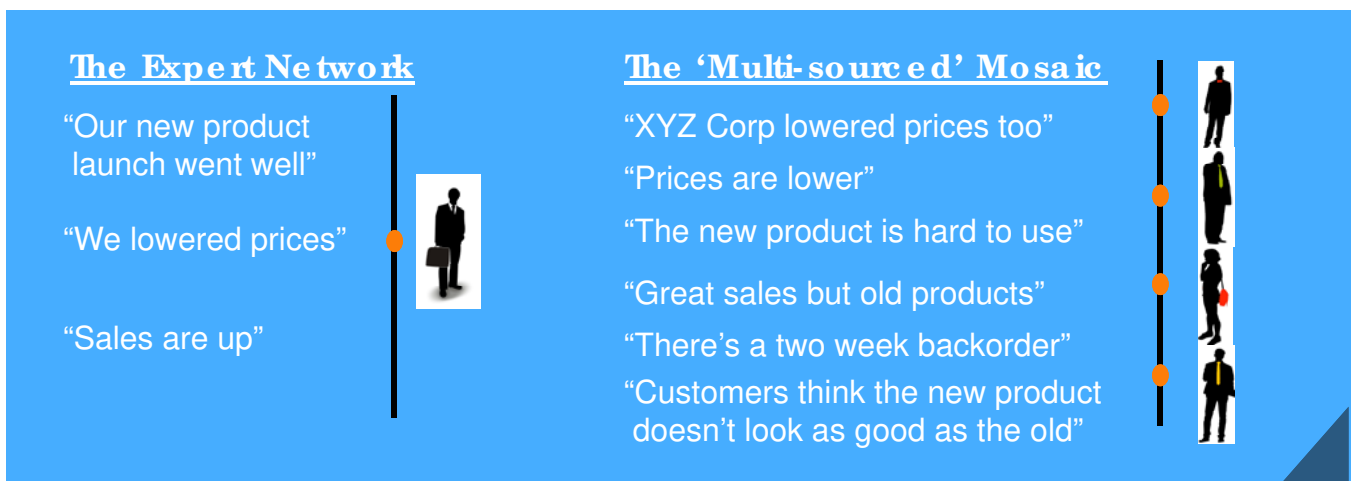
Mosaic Approach

Compliance Friendly/Information Rich

Soliciting contributions from a large group of people, each of whom do not have material information, creates a Mosaic of opinions. The commonality among opinions gives shape to a Mosaic. This approach to market intelligence sourcing offers rich information content in aggregate, and provides an alternative to expert-network platforms.

Our respondents often represent third-party distribution channels, or **tangential distribution markets**, at the lowest level of the organization, but with unique knowledge of a target company's customers, their opinions and trends.

Penserra's multi-source approach was developed to offer a value-added complement to traditional research by pairing technology and mathematics to find consensus opinions about a company's fundamentals.



REGULATION FD – INSIDER TRADING COMPLIANCE

We do not provide executive level insights from people inside a target firm nor one-on-one access. There is also a technological barrier that separates respondents from clients.

How we provide research

1



CROWD OF SURVEYORS

is trained to maximize their success and to remain in compliance as they call on respondents.

2



EACH RESPONDENT

Provides, in isolation, immaterial information, opinions and feedback.

3



IN AGGREGATE

respondents represent a target firm's tangential distributors e.g. independent tire stores that sell Goodyear in Kansas.

How we provide research

ALGORITHMS

transform individual, immaterial data into meaningful insights.

IMPROVEMENT

starts with a record of every Respondent. This information used to weigh the more accurate Respondents heavier than others over time.



A REPORT

includes both quantitative and qualitative data from the mosaic of respondents, providing a cohesive story.

An Example

ENVIRONMENT

Oil prices have fallen precipitously and investors in Goodyear Tire are speculating on how much Goodyear will pass on the savings from oil price declines to the customer. *A large percent of the cost of a tire is derived from oil.*

CUSTOMER INQUIRY

Penserra was asked to launch a market intelligence campaign to determine:

- How much Goodyear Tire had lowered prices?
- Have price reductions affected sales and promotional spending?
- How are new tire brands being received by the market?
- Have competitors adjusted their prices, promotions and expenditures?

The Cost of Tire



RESEARCH PROCESS

Penserra's proprietary technology platform reached a crowd of surveyors distributed throughout the world. Each surveyor was given through the platform the phone numbers of independent tire distributors. The platform was used to evaluate the research and weigh the results, based on statistical techniques.

RESULTS

The customer received statistically significant data, indicating that Goodyear Tire had not lowered prices as much as their main competitor, Michelin, and that Michelin consequently was in a position to gain significant market share.

Options, options, options ...

APPLICATIONS

- Primary Industries: Consumer, Industrial and Medical Devices
- Coverage includes in micro cap, small cap large cap, as well as Value, GARP and Growth
- Limits to coverage: Companies that do not have enough statistically relevant data to be surveyed

Subscription-based

- Standardized monthly coverage
- Close to 100 names
- Published quarterly for each stock
- Current information
 - Product price changes
 - Product volume changes

Custom-tailored

- Customize queries
- Select your own sample size
- Scalable process
- Fungible inputs and outputs
- 3-5 day response time
- In-depth coverage for specific questions
 - Product launch intelligence
 - Customer loyalty gauge
 - Recent challenges
 - Market share changes
 - Inventories
 - Sales trends
 - ...and any other questions

Market Intelligence ...



... at a push of a button.

How Research Fits In At Penserra

PENSERRA – FOCUSED ON INSTITUTIONAL FINANCIAL SERVICES

Our vision:

- Provide high quality services leveraging technology, data, and market knowledge
- Build strong client relationships based on trust and an understanding of client needs

TRADING

Blending personal service with sophisticated technology, we work with clients to navigate the complexity of today's markets, implementing your trading objectives.

RESEARCH

Cost-effective and scalable, our research platform allows asset managers and sell-side analysts to get out of the survey and channel check business and focus on their core competencies.

Beta Management

Specializing in indexing and transitions, we combine portfolio management, trading and operational expertise to meet a client's asset management needs.

RESEARCH AT PENSERRA IS INTENDED TO BE DIFFERENT

Building on our goal of understanding client needs, we created a research platform that intentionally complements many existing sources of research. Combining multi-sourcing technology with algorithmic decision making expertise, you can obtain statistically relevant market intelligence about target firms, in both a primary source and channel check capacity, without adding to your compliance burden. Through monthly coverage reports or your own customized research queries, *we'll work with you to find the information you need to enhance your own competitive edge.*

How Penserra Fits In With Your Research

WHAT YOU ALREADY DO:

- Weigh opinions from different sources
- Build valuation models with information from content providers
- Gather market intelligence
- Make well thought-out investment decisions

HOW WE FIT IN:

- Penserra gives you access to industry participants at a push of a button through survey based research (an extension of channel checks.) This approach has successfully helped customers gain insights for years.
- Surveyors are both screened and trained at multiple checkpoints throughout the process, so you are not burdened with using resources to meet regulatory requirements.

WE HELP YOU:

- Concentrate on your core business, cost effectively
- Increase the breadth of your market intelligence
- Increase the accuracy of your market intelligence
- Consolidate your research providers
- Gain access to proprietary information
- Gain research tailored to your needs
- Meet your compliance needs

Quarterly Coverage

- BIG
- BGFV
- BJRI
- BONT
- BWS
- CAB
- CASY
- CNK
- CRI
- DKS
- DLTR
- DSW
- ETH
- FRAN
- GNC
- HGG
- HIBB
- HOG
- IRBT
- JMBA
- KATE
- LF
- IL
- LTM
- PIR
- PIRY
- RDEN
- SAM
- SBH
- SHOO
- SKX
- SO DA
- SSI
- TEM
- TUES
- TUMI
- ULTA
- VRA



Quarterly Coverage

Big Lots:	“[Freezers and coolers] are expected to go countrywide within a year”
Big 5 Sporting Goods	“We receive random shipments of ammo and that ammo for .22 [caliber] is hard to get”;
BJ’s Restaurants	“On an average night, approximately 20 more guests per restaurant are able to dine due to the mobile app. “
Bon-Ton Stores	“People have been happily signing up for the credit card”
Brown Shoe Co.	“The app is [somewhat] new a few people have used it”
Cabela’s	“Guns and ammo had a boom period last year, especially for .22 and all RIM fire. This year is back to normal”
Casey’s General Stores	“The reason their business is going up is because they now deliver pizza”
Dick’s Sporting Goods	“The buy online/store pick option...not popular”
Dollar Tree	“The addition of the refrigerated/frozen section seems to be a big selling point for customers”
Designer Shoe Warehouse	“Custom jewelry in these stores is very NEW-very popular with young girls”
Ethan Allen Interiors	“The younger and middle aged are really responding to the Eclecticism focus”
Francesca’s Holdings	“Colorful jewelry sells a bit more than metal-but metal-gold/silver close second here”
Jamba	“Breakfast is the only meal which people eat there habitually”; “Smoothies are 2 to 1 favorite over juices”
Kate Spade & Company	“Jewelry is clearly the category which is growing in popularity”
Leap Frog Enterprises	“Haven't sold any LeapTvs because word has not gotten out about the product”
Lumber Liquidators Holdings	“This Idaho area has significant increase in new constructions and contractors choose THEM”
Life Time Fitness	“[In] lower level clubs, membership continues to [drop] off...have already lowered fees greatly”
Pier 1 Imports	“Order online and pick up in the store” is testing well.
The Pantry	“They are popular because they are the only convenience store in the area with hot food”
Elizabeth Arden	“Teen fragrances [are] adding teen customers and boosting sales slightly”
Boston Beer Co.	“[The store has] received a lot keg orders for the Rebel IPA”
Sally Beauty Holdings	“[We] have been a little more proactive at our location as far as educating customers about the Beauty Club Card”
Steve Madden, Ltd	“FREEBIRD shoes are less popular at [rep’s] store but that they are more popular at fashion-forward branches”
Sketchers USA	“GOwalks [are] selling less now, but still the most popular Sketcher’s shoe”
Stage Stores	Cosmetics, the best performing category in Q1, continued to sell well in most stores.
Tuesday Morning	“Inventory only drops to a low between October-December”
Tumi Holdings	“We are one of the only stores that I know of that carries the complete carbon fiber line and it sells fast”
Vera Bradley	“New patterns not really catching on yet”

We are available to answer your questions, discuss your current research coverage, or help you evaluate your investment research needs at any time.

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