Matthews International Capital Management Offsite

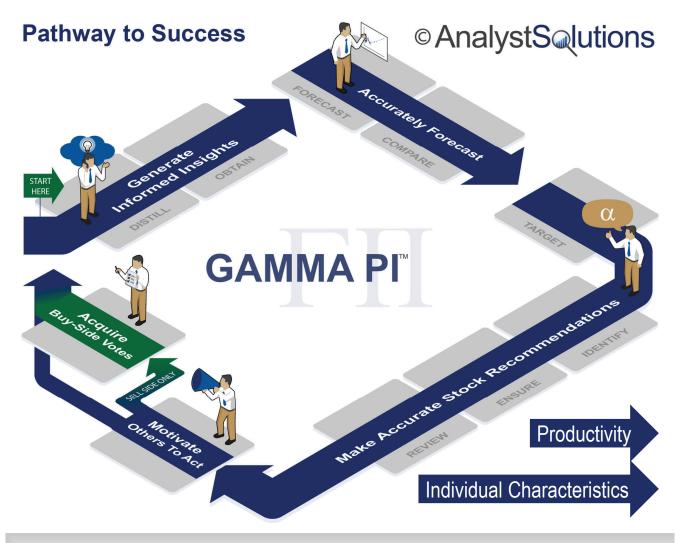
17 September 2019

2

AnalystSalutions

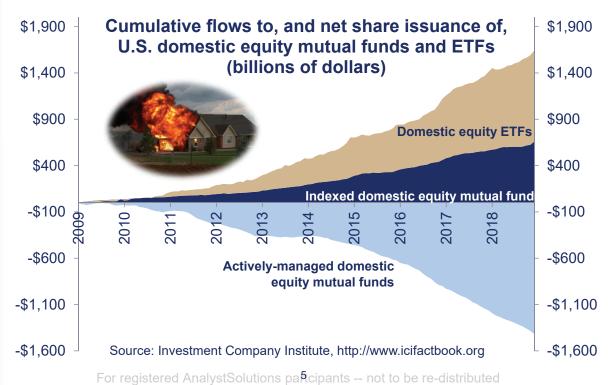
Agenda

- Identify and Monitor a Stock's Critical Factors
- Generate Differentiated Insights
 Through Better Discovery,
 Questioning, and Influencing
- 3. Maximize Your Time for Alpha Generation
- 4. Specialists vs. Generalists



AnalystSalutions





Portfolio Manager's Frustrations

Tell me something that

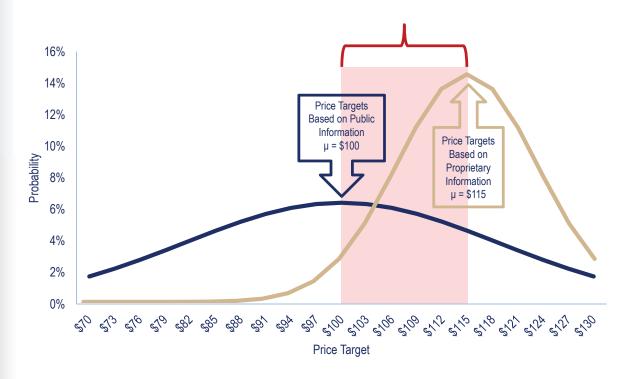
will generate alpha

- Over 80% of research is worthless
 - Not unique
 - Few to no insights
 - Backward looking
 - Lacks substance
 - Lacks conviction
- Research should focus on:
 - What's unique about the analyst's work?
 - What's the market missing?
 - Where do the supporting details come from?
 - What's new from the last update?

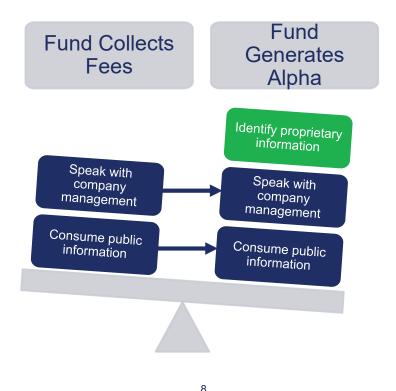
6

AnalystSalutions

Information Asymmetry

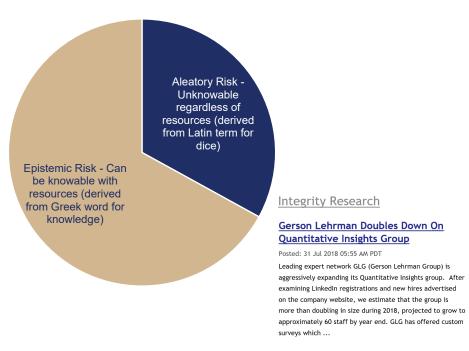


Information Asymmetry = Alpha



AnalystSolutions

Improving Return vs. Risk



For registered AnalystSolutions pa9cipants -- not to be re-distributed

Quantitative Process

_					
	Gather Data	Curate Data	Build and Test Factors	Combine	Implement & Monitor
Act	ivities at Scale (Team i	n quant shop)			
•	Test third party data source Create custom data gathering	 Clean, adjust, index, and store data Time series, index rolls, currency adjustments 	 Transform data into informative signals Data processing, signal extraction, feature importance 	 Combine and weight multiple signals Develop dynamic allocation model 	 Monitor factor and strategy performance Phase strategies in and out
Activities by Individual					
٠	Gather data with web scraping, excel plug-ins, APIs	Build database	Build factors and test significanceBacktest on real data	Create ranking mechanism from data	Track performance versus benchmarkExamine misses
Too	ls				
Tim	Web scaping (coding) Excel downloads APIs	• Excel • SQL	 Data manipulation, statistical modeling, graphing/visualization R, Python, other (not Excel) 	Statistical coding (R or Python, usually)	Trading system reportsExcel
•	10% if available 50% if not	• 20%	• 40%	• 10%	• 10%
Kev	skills				
•	Domain knowledge (what is important)	Database constructionDomain knowledge	Statistics & codingVisualization	Statistics/Math	• Curiosity

AnalystSalutions

Source: c.rank.y credit: https://crankycredit.com/

Expand Your Toolset Beyond Excel

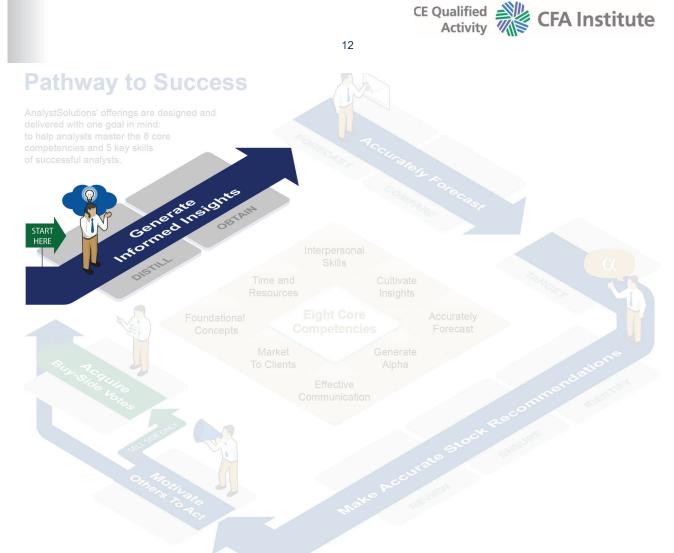
 Domain knowledge (what should work)

(how adjust data)

Choose one (learn both eventually) **SQL** R **Python** What is it? · Structured Query Language · Statistical programming · Very flexible and easy to learn Used to create and query language programming language databases Dominates statistical · Named for Monty Python community The logic of databases • Excellent data manipulation · Rapidly becoming de facto Why learn permeates all programming and visualization scripting language standard You can learn it in a few days. Best support for statistical · Broadest use outside of There are only 7 commands. operations statistics · Best support for machine learning Which software MySQL R • Python 3 (not 2.7) Which interface MySQL Workbench Jupyter notebooks via the RStudio Anaconda download Key packages dplyr pandas tidyverse matplotlib · scikit learn ggplot · tensorflow

Total cost of the above? FREE. Invest in a \$10 -\$20 Udemy course on each to help you get started.

Identify and Monitor a Stock's Critical Factors



Complete Your TAP

Section 1, Part 1

Transformation Action Plan (TAP)

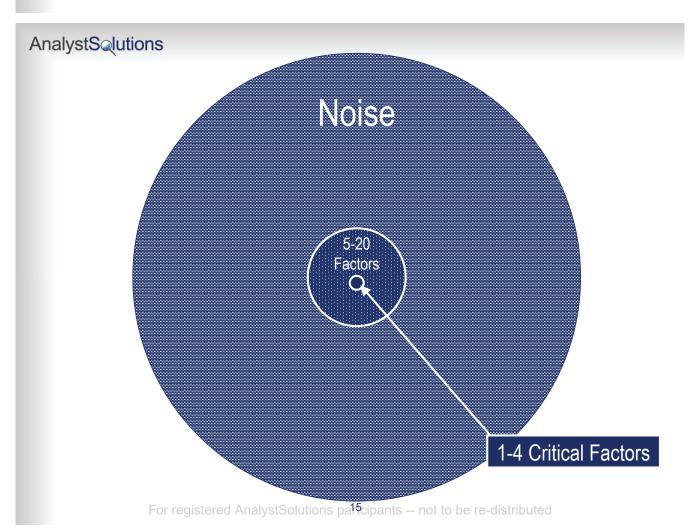


Instructions for the Transformation Action Plan (TAP):

- Throughout this workshop complete the TAP below
- Apply the key points after the workshop to help you improve your performance
- This will not be collected and so write in a manner that will help you utilize the concepts being learned

Exercise: "List Everything"

14



Sea of Mediocrity



- "90% of everything is crap"
 - Sturgeon's Law (1951)
- "Four-fifths of everybody's work must be bad. But the remnant is worth the trouble for its own sake."
 - Rudyard Kipling (1890)

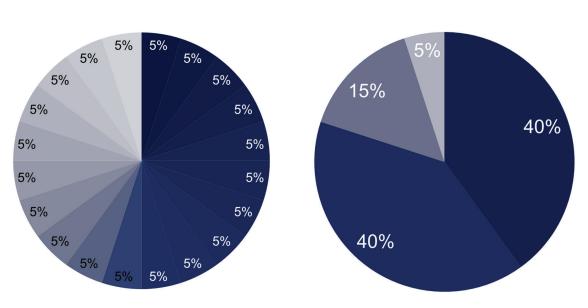
16

AnalystSalutions

What Will Your Day Look Like?

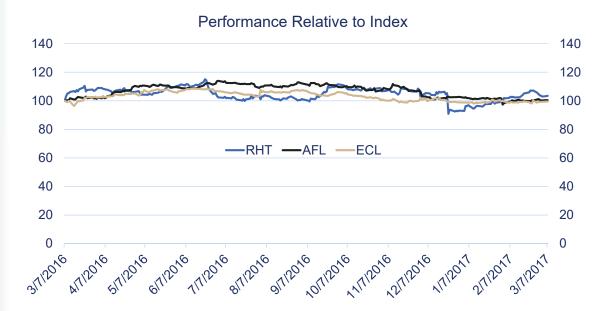
Critical Factors
Not Defined

Critical Factors
Defined



For registered AnalystSolutions pal7cipants -- not to be re-distributed

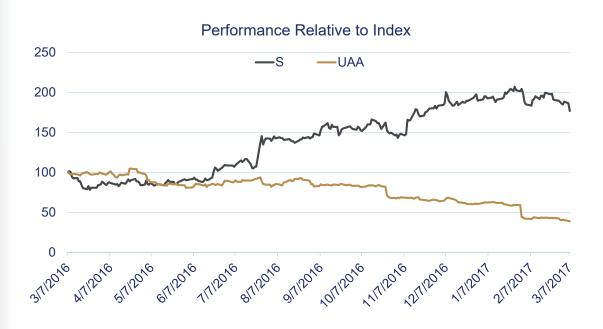
Generate alpha...



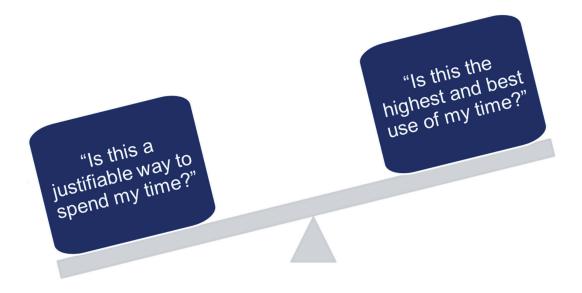
18

AnalystSolutions

Generate ALPHA



What Gets An Analyst Paid?



20

AnalystSalutions

Definition of Critical Factor

- An under-appreciated stock-related factor, that can be forecast with reasonable accuracy to occur during the investor's investment time horizon, leading a stock to out- or underperform an index
- Everything that can move a stock is not automatically a critical factor

AnalystSalutions

EPIC™ Stock Calls Require Critical Factors Meet All Four Criteria



AnalystSalutions

Exceeds Materiality Threshold?

- Material changes in earnings or cash flow growth
- Material changes in returns
- Material changes in the probability:
 - The company makes an acquisition
 - The company is purchased by another entity
 - There is a change in senior management
- Material change in the volatility profile of the stock



Exceeds Materiality Threshold?

"Materiality" can mean different things to different people:

 A hedge fund that turns over its portfolio every month may need only a 5% relative move in a stock to make a trade

 A large long-only fund that builds large positions may need at least a 15% relative move to invest in a stock



24

AnalystSalutions

Does It Matter Where It Hits the Income Statement?

1% change in revenue from volume

 Need to include the associated costs for the incremental revenue

1% change in revenue from pricing

 No associated costs and so aside from taxes, it drops to the bottom line

1% change in expenses

Aside from taxes, it drops to the bottom line

1 point change to tax rate

Drops to the bottom line

1% change in share count

Causes corresponding change to EPS

Materiality Tool

Ticker: Period (year) Amount EPS needs to change to be "material": Step 1: Compute 10% of net income	FDX 2016 10%	IBM 2016 10%	SBUX 2016 10%	WMT 2016 10%
10% change to EPS	1.08	1.37	0.19	0.44
Materiality threshold as measured in net income	\$302	\$1,317	\$286	\$1,414
Other Or Commentate was the EDIT (MACIC NUMBER)				
Step 2: Convert to pre-tax EBIT (MAGIC NUMBER) Materiality threshold as measured in pre-tax EBIT	\$375	\$1,359	\$424	\$2,036
materiality threshold as measured in pre-tax EDIT	ΨΟΙΟ	Ψ1,505	Ψ 7 2-T	Ψ2,030
Step 3: Compute threshold for changes from pricing and expenses				
Materiality threshold as measured in changes to pricing ¹	0.7%	1.7%	2.0%	0.4%
Materiality threshold as measured in changes in expenses ²	0.8%	2.0%	2.5%	0.4%
Step 4: Compute threshold for change in revenue from sales/volume Materiality threshold as measured in changes from sales/volume ³ As a percent of revenue	\$3,767 7.5%	\$8,117 10.2%	\$2,135 10.0%	\$40,980 8,5%
As a percent of revenue	1.070	10.2 /0	10.070	0.070

26

AnalystSalutions

Complete Your TAP

Section 1, Part 2

Questions #1 & #2

Transformation Action Plan (TAP)



Instructions for the Transformation Action Plan (TAP):

- Throughout this workshop complete the TAP below
- Apply the key points after the workshop to help you improve your performance
- This will not be collected and so write in a manner that will help you utilize the concepts being learned

AnalystSalutions

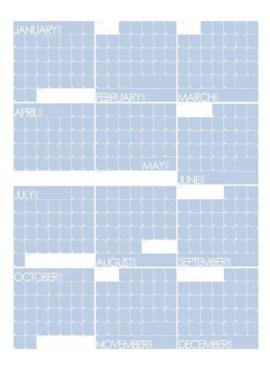
EPIC™ Stock Calls Require Critical Factors Meet All Four Criteria



AnalystSalutions

Probably Going to Occur?

- Will likely occur during your investment time horizon
- What is your investment time horizon?



Sweet Spot of Forecasting

Abundant information

Forecasting can be valuable

Too much uncertainty

Short-term

Medium-term

Long-term

30

AnalystSalutions

Complete Your TAP

Section 1, Part 2

Question #3

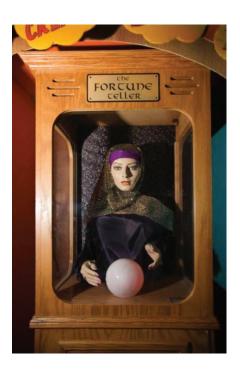
Transformation Action Plan (TAP)



Instructions for the Transformation Action Plan (TAP):

- Throughout this workshop complete the TAP below
- Apply the key points after the workshop to help you improve your performance
- This will not be collected and so write in a manner that will help you utilize the concepts being learned

I'm Good at Forecasting?



- It's not just "guesstimating"
- Can we forecast most alpha-generating events?
 - Systematic vs.
 - Unsystematic
- What other element needs to be forecast, beyond financial estimates?

32

AnalystSalutions

High Quality Catalyst(s)

- Why does a great stock call need a catalyst?
- Some of the more common places to expect catalysts include:
 - Company-sponsored analyst meetings and calls
 - Earnings releases
 - The company's annual pricing, volume, or earnings guidance or projection
 - Deadlines for new legislation, regulations, or court case outcomes
 - Prescheduled announcements by the company's customers, competitors, or suppliers
 - New product releases or significant product extensions
 - Interim sales data, for the company or the sector
 - Non-deal investor roadshows



Methodology of Superforecasters

- 1. Unpack the question into components
- 2. Distinguish as sharply as you can between the known and unknown and leave no assumptions unscrutinized
- 3. Adopt the outside view (base rate, or statistical average) and put the problem into a comparative perspective that downplays its uniqueness and treats it as a special case of a wider class of phenomena
- 4. Adopt the inside view (specifics to the particular case) that plays up the uniqueness of the problem
- 5. Explore the similarities and differences between your views and those of others—and pay special attention to prediction markets and other methods of extracting wisdom from crowds
- 6. Synthesize all these different views into a single vision
- 7. Express your judgment as precisely as you can, using a finely grained scale of probability

Source: Superforecasting: The Art and Science of Prediction

34

AnalystSolutions

Characteristics of Superforecasters

- In <u>philosophic outlook</u>, they tend to be:
 - Cautious: nothing is certain
 - Humble: reality is infinitely complex
 - Nondeterministic: what happens is not meant to be and does not have to happen
- In their <u>abilities</u> and thinking styles, they tend to be:
 - Actively open-minded: beliefs are hypotheses to be tested, not treasures to be protected
 - Intelligent and knowledgeable, with a "need for cognition": intellectually curious, enjoy puzzles and mental challenges
 - Reflective: introspective and selfcritical
 - Numerate: comfortable with numbers

- In their <u>methods</u> of forecasting they tend to be:
 - Pragmatic: not wedded to any idea or agenda
 - Analytical: capable of stepping back from the tip-of-your-nose perspective and considering other views
 - Dragonfly-eyed: value diverse views and synthesize them into their own
 - Probabilistic: judge using many grades of maybe
 - Thoughtful updaters: when facts change, they change their minds
 - Good intuitive psychologists: aware of the value of checking thinking for cognitive and emotional biases
- In their <u>work ethic</u>, they tend to have a:
 - Growth mindset: believe it's possible to get better
 - Grit: determined to keep at it however long it takes

Source: Superforecasting: The Art and Science of Prediction

Complete Your TAP

Section 1, Part 2

Questions #4, #5 and #6

Transformation Action Plan (TAP)



Instructions for the Transformation Action Plan (TAP):

- Throughout this workshop complete the TAP below
- Apply the key points after the workshop to help you improve your performance
- This will not be collected and so write in a manner that will help you utilize the concepts being learned

36

AnalystSolutions

EPIC™ Stock Calls Require Critical Factors Meet All Four Criteria



For registered AnalystSolutions pa37cipants -- not to be re-distributed

An Analyst's Goal...

Identify where consensus is wrong

38

AnalystSalutions

Consensus is Poor at Forecasting?

- Tough to generate alpha when others have done work in the same area
- Does consensus have the answer already…
 - If not, why not?
- How can you determine if consensus will be poor at forecasting?



Complete Your TAP

Section 1, Part 2 Question #7

Transformation Action Plan (TAP)



Instructions for the Transformation Action Plan (TAP):

- Throughout this workshop complete the TAP below
- Apply the key points after the workshop to help you improve your performance
- This will not be collected and so write in a manner that will help you utilize the concepts being learned

40

AnalystSalutions

Factor to Potentially Be Researched	If this factor were to occur or change from trend, it would cause changes in consensus' expectations to Exceed my materiality threshd	horizon	Based on my research on the factor, I'm good at forecasting this factor and its catalyst (it's not just a guess)	forecasting or spotting an	Total
Cost management/productivity/Improved network efficiency	5	4	4	5	18
Level of fuel surcharge collected	5	4	4	4	17
Acquisition(s)	5	3	2	5	15
Ground package volume growth	3	4	4	4	15
Domestic Express package pricing/yield	4	3	4	3	14
Ground package pricing/yield	4	3	3	4	14
International Priority package pricing/yield	3	4	3	4	14
International Priority package volume growth	2	4	4	4	14
Service levels other than during the holiday season	3	2	4	5	14
Change in senior management	5	2	2	4	13
Electronic documents reducing need for overnight envelopes	2	4	3	4	13
GDP growth	5	3	2	3	13
Labor cost trends	3	3	3	4	13
Domestic Express package volume growth	2	3	4	3	12
Service levels at holiday season	2	2	3	5	12
Asia-Pacific volume growth	2	3	4	2	11
Change in level of tech shippers vs. non-tech shippers	4	2	3	2	11
Purchase of new aircraft	1	3	3	4	11
Level of major weather disruptions	1	3	1	5	10
Depreciation rate	1	2	2	4	9

Complete Your TAP

Section 1, Part 2

Question #8

Transformation Action Plan (TAP)



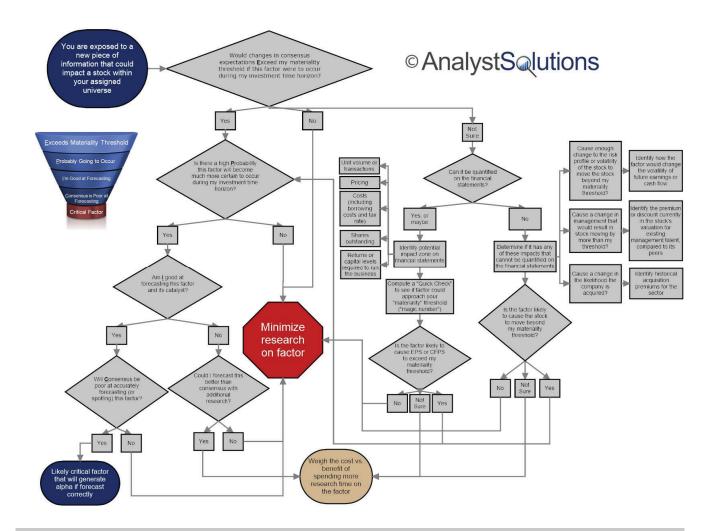
Instructions for the Transformation Action Plan (TAP):

- Throughout this workshop complete the TAP below
- Apply the key points after the workshop to help you improve your performance
- This will not be collected and so write in a manner that will help you utilize the concepts being learned

42

AnalystSalutions

DEBRIEF: WHERE IS THE MARKET WASTING ITS TIME?



AnalystSalutions

Reference Card

Detailed Reference Card (DRC)

Identify a Stock's Critical Factors

Seek Factors That Meet All Four Criteria Below

Benefits of Focusing on Critical Factors

- Reviewing information becomes more efficient because as much as 90% can be ignored
- Greater focus on seeking the **best** information sources with expertise around critical factors
- Financial modeling is focused on forecasting the areas that will most impact EPS and cash flows
- Stock calls are predicated on a change in the consensus thinking surrounding a factor that will move the stock
- Presentations and reports are easier to produce and more appreciated by recipients because they focus on the most important issue likely to move a stock
- Sell-side analysts are more impactful when helping clients because they're focused on important issues

46

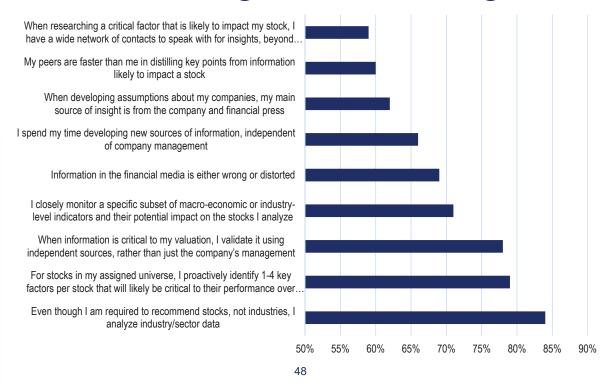
AnalystSalutions

Generate Differentiated Insights Through Better Discovery, Questioning, and Influencing



AnalystSalutions

Survey Responses: Generating Informed Insights



AnalystSalutions

Unique Insights or Just Information?

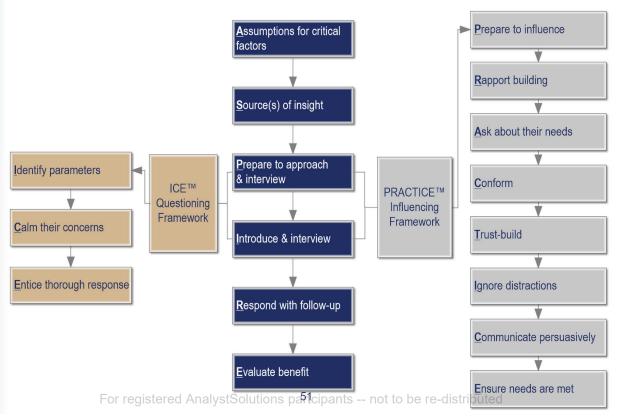
Information	Insight
Apple's iPhone 8 is to have an edge- to-edge OLED screen	 Apple's new iPhone 8 will likely accelerate its EPS growth rate; OR confirm slower smartphone innovation is leading to longer upgrade cycles
Tesla will deliver its first Model 3 in late 2017	 Tesla's launch of its Model 3 will eliminate concerns about its longer term growth rate; or be delayed by 6-12 months, causing its valuation to drop by 10%
Bayer will report earnings next Wednesday	 Next Wednesday when Bayer reports earnings, I expect it to raise its revenue forecast to €42 billion up from its current €41 billion

AnalystSalutions



AnalystSalutions

Key Frameworks



Complete Your TAP

Section 2

Transformation Action Plan (TAP)



Instructions for the Transformation Action Plan (TAP):

- Throughout this workshop complete the TAP below
- Apply the key points after the workshop to help you improve your performance
- This will not be collected and so write in a manner that will help you utilize the concepts being learned

AnalystSolutions

Sources of Insight

- Live
 - Roles outside financial markets
 - Roles within financial markets
- "Read-only"
 - Data (including surveys)
 - News feeds/blogs
 - Company documents



Where Do I Find Sources?



AnalystSalutions

Review QRC

Quick Reference Card (QRC)

Information Sources Pros and Cons

Individual Conversatio	on				
Source for Information	Pros	Cons	Confirm or Refute Historical Factors*	Assess New or Emerging Critical Factors	Assess Market Psych.
Buy-side analyst or portfolio manager (as source for buy-	Best place to gauge	May not be representative of			

Scan Target-Rich Websites

Use online sites such as those below to find individuals formerly employed by the company, currently employed by a competitor (preferably a privately-held competitor) or an expert on the critical factor(s) you're researching:

- On-line networking groups such as LinkedIn, alumni networks, etc.
- On-line job boards such as Monster.com and Upwork



AnalystSalutions

Read Relevant Content Creators



- Proactively read relevant industry trade blogs and journals that answer questions about critical factors
- If possible, have these automatically sent to you or set time aside each week to read

Scan Content Creators



- Research topical blogs
 - Google sector name and "blogs" to find names of the blogger and those who are mentioned or quoted
 - Sign up for the good ones
- News stories (to find names of the journalist and those being quoted)
 - General press, when the story has a focus on your sector(s)
 - Trade journals focused on your sector(s)

AnalystSalutions

Scan for High-Profile Authorities

- Conference speakers (even those you don't attend) focused on the critical factor(s)
- Authors of papers, books and presentations
 - Conduct a Google "Advanced Search" and ensure the "file type" is PDF or PowerPoint
 - For books use: http://www.worldcat.org/
 - For papers use: http://www.ebscohost.com/ (subscription based)
 - You may want to research YouTube, but unless the topic pertains to companies only, you may get too many search results to quickly analyze
- Search the internet for names of consulting firms that specialize in the sector (if the search doesn't come up with a quick answer, ask company management for the consultants they use)

Scan Aggregator of Names



- Industry, association and professional society websites
- Industry award winner lists (e.g. "top performers of the year")
- Databases or lists that contain the names of the largest privately-held companies in your sector (it can be an industry associate directory, or use a service such as Hoovers)

AnalystSalutions

Sign Up



- Join relevant:
 - On-line groups
 (LinkedIn, industry forums, user groups, etc.)
 - Industry trade groups
- Subscribe to relevant industry consulting firms' publications
- Participate at the industry-level

Participate in Industry Events

- Examples:
 - Conferences
 - Trade shows
 - Annual award banquets
- Prescreen
- Get an advanced list
- Approach good speakers after presentations
- Attend social events
- Connect with the senior event coordinator



AnalystSalutions

Don't Forget To...

- Ask contacts for:
 - Up-stream sources
 - Down-stream sources
- Periodically contact the information source to help them



Consider Expert Networks

You may want to utilize expert networks (if allowed by your firm), but understand the best contacts are probably already speaking to others in the financial community and so they won't be entirely proprietary



AnalystSalutions

Expert Networks

Examples:

- GLG
- AlphaSights
- Third Bridge
- Guidepoint Global
- ExpertView



Limitations of Relying on Company Management

- Can't be objective
 - Exaggerate upside
 - Downplay downside
- Can't be source of key information not already widelydisseminated
- Unaware of their blind spots



AnalystSolutions

Live Roles Within Financial Markets

- Buy-side analysts should forge relationships with:
 - Other smart buy-side analysts
 - Three sell-side analysts per sector
- Sell-side analysts should be continually surveying the smartest
 - Clients
 - Salespeople
 - Traders



Typical "WIIFT"

- Access to insights from senior management of companies within the industry
- · Understanding of their company and its stock price
- Understanding of the industry trends or their company's competitors
- Access to other experts
- · To be recognized as an industry thought leader
- Ego boost
- Desire to honor request from colleague or friend who referred you to the information source
- Develop more friendships within the industry

AnalystSalutions

DRC Covers Non-Verbal Communications

Detailed Reference Card (DRC)

Generating Sustainable Sources of Insight with ASPIRE™ Framework

Be Mindful of Non-verbal Communications (i.e. Body Language)

- Research shows 65% to 93% of the message being delivered can be nonverbal, and so for inperson interviews, don't miss these cues (this is another reason why in-person interviews are superior to phone or email exchanges, but they require more time which is why they're aren't always the best option)
- When asking interviewees questions, note their verbal and non-verbal responses. If they quickly and confidently downplay your concerns, you can feel more confident with the answer than if they appear concerned or, worse yet, avoid answering the question.
- There is significant subjectivity involved in reading body language and much practice is required to master these skills. As you'll see below, for every cue there is a qualifier that says you can't rely

Summary of ASPIRE™ Best Practices (1 of 2)

- Identify the Assumptions that need answering for the 1-4 critical factors per stock
- Seek Sources of insight such as:
 - Reviewing industry trade journal, website, or blog
 - Interviewing:
 - · Consultant, expert, or company retiree who is not in an expert network
 - Management from customer of, or supplier to, or competitor of the stock being researched (can be publically-traded or privately-held company)
 - · Government official, staffer, lobbyist or association executive
 - · Journalist, blogger or noted book author
 - Industry award-winners (e.g. best salesperson)
 - · Consultant, expert, or company retiree who is part of an expert network
 - Analyzing information from private forecasting service in a manner other than for which it was intended
 - Conducting survey, formal or informal
- Prepare to approach and interview
 - Prepare questions, ensuring they have these elements (from our ICE™ framework):
 - · Identifiable parameters
 - · Calm their concerns
 - Entice a response
 - Identify "What's in it for them?" (WIIFT)

AnalystSalutions

Summary of ASPIRE™ Best Practices (2 of 2)

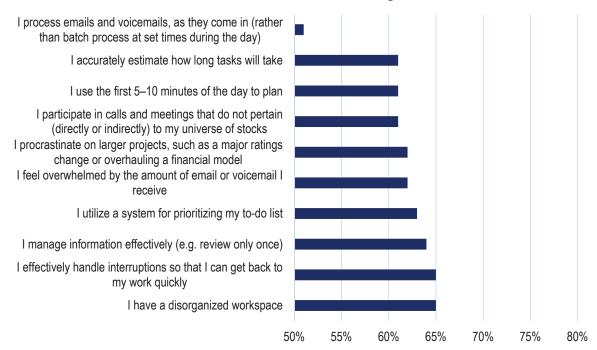
- Introduce and interview
 - Use good influencing skill techniques (explained in our PRACTICE™ framework):
 - · Build rapport by showing interest in them
 - Ask about their needs
 - · Conform to their style and do not openly reject their view (even if you disagree with it)
 - Use "linking & building" to get from their view to your question
 - Use the rule of reciprocity, social proof, scarcity and authority figure to motivate them to help
 - Explain you won't quote or attribute their thoughts
 - Start by asking easiest questions first
 - Don't allow interviewee to take control or use their influencing skills to derail the interview
 - Convey and read body language to be effective
 - End with purpose by asking for commitment to follow-up and referrals to other information sources
- Respond quickly with follow-up to build trust and improve ability to influence
- <u>E</u>valuate the benefits of spending time cultivating each contact

Maximize Your Time for Alpha Generation



AnalystSalutions

Survey Responses: Productivity



Drinking from Fire Hose



AnalystSolutions

Time Management Is Your Primary Weapon

- The 3 elements that can make a great analyst:
 - Superior intelligence
 - Superior firm resources
 - Superior work skills



Which can you control?

What Would 10% More Time Mean to You?

At least 5 extra hours per week could be used for...

- Better identifying the critical factors most likely to move a stock
- Calling information sources about a critical factor
- Conveying your insights to those colleagues you need to influence



AnalystSalutions

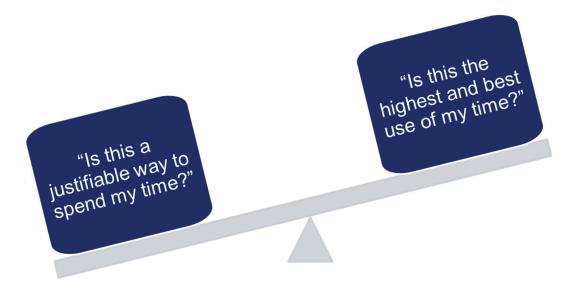
Most analysts play defense...



...while the best play offense

For registered AnalystSolutions partcipants -- not to be re-distributed

What Gets an Analyst Paid?

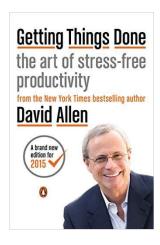


AnalystSalutions

Challenge to Balance



AnalystSalutions



Goals

THE THABITS OF HIGHLY EFFECTIVE PEOPLE

Powerful Lessons of the Personal Change of the National Personal Change of the Nationa

Tactics

Day-to-day Activities

80

AnalystSalutions

DEEM™ to Prioritize Your Time



 Step 1: <u>D</u>efine and prioritize professional goals and tactics (Parts A & B online)



 Step 2: <u>E</u>stimate current (or prior) time spent on daily activities (Part C online)



Step 3: **E**valuate time spent on daily activities vs. the goals and tactics they support



Step 4: Modify time usage when activities are not aligned with goals and tactics

Time Used On Any Activity Should Balance with the Goals It Achieves



AnalystSalutions

Primary Goals

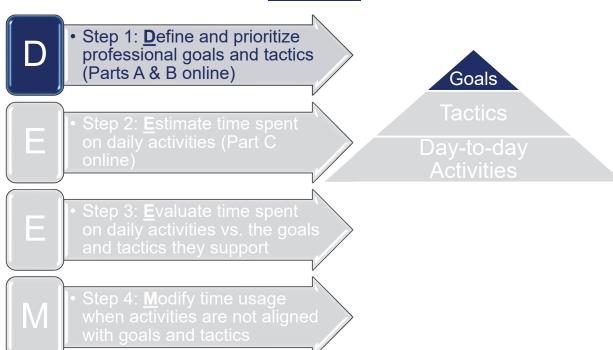
Generate Alpha or Help Clients Generate Alpha



Get Recognized for Your Efforts



Step 1A: Define and Prioritize Professional **Goals** and Tactics



AnalystSolutions

Step 1B: Define and Prioritize Professional Goals and **Tactics**



Part B,	Item A
---------	--------

Part B: Are Your Activities Aligned with Your Tactics?

			_
	Tactic Category	Your Initial Ranking (Item "A")	E Pi Ac th
Distill macro, industry and company information to identify the most important critical factors for my assigned stocks	GI: Generate insights more accurate than consensus	10	
Build/contact network of informed/accurate information sources to identify/validate my out-of-consensus views for my critical factors	GI: Generate insights more accurate than consensus	10	
Generate a financial forecast(s) more accurate than consensus by using unique insights not held by consensus	FA: Forecast accurately	10	
4. Apply the most appropriate valuation method(s) and multiple(s) to create a price target(s) more accurate than consensus	VA: Value (stocks) accurately	9	

AnalystSalutions

Step 2: Estimate Time Spent on Daily Activities

Step 1: Define and prioritize professional goals and tactics (Parts A & B online)

Step 2: Estimate time spent on daily activities (Part C online)

Day-to-day Activities

Step 3: Evaluate time spent on daily activities vs. the goals and tactics they support

Step 4: Modify time usage when activities are not aligned

For registered AnalystSolutions partcipants -- not to be re-distributed

Activities Are Categorized as a Means to Achieving a Tactic

Tactic:

"Ensure I'm getting into or out of a stock at the ideal time (not early or late)"

Activities

Before making a major change in stock recommendations, setting aside time to assess market sentiment towards a stock

Researching elements of risk rather than just upside for my high-conviction stock calls

Reviewing my investment thesis with a colleague/committee before changing, in order to reduce my potential biases or blind spots

When making recommendations, verifying my forecasts and/or valuation multiples are accurate and justifiably out-of-consensus

AnalystSalutions

Step 3: Evaluate Time Spent On Daily Activities vs. Goals And Tactics They Support

Step 1: <u>D</u>efine and prioritize professional goals and tactics (Parts A & B online)

Step 2: <u>E</u>stimate time spent on daily activities (Part C online)

Goals

Step 3: <u>E</u>valuate time spent on daily activities vs. the goals and tactics they support

Step 4: <u>M</u>odify time usage when activities are not aligned with goals and tactics

For registered AnalystSolutions partcipants -- not to be re-distributed

Part B: Item B & "Activity Score"

Part B: Are Your Activities Aligned with Your Tactics?

	Tactic Category	Your Initial Ranking (Item "A")	Ranking Based on Prioritizing Your Activities in the Recent Past (Item "B")	Activity Score: Ratio of Item B divided by Item A
Distill macro, industry and company information to identify the most important critical factors for my assigned stocks	GI: Generate insights more accurate than consensus	10	6.5	65.5%
Build/contact network of informed/accurate information sources to identify/validate my out-of-consensus views for my critical factors	GI: Generate insights more accurate than consensus	10	6.5	65.5%
Generate a financial forecast(s) more accurate than consensus by using unique insights not held by consensus	FA: Forecast accurately	10	5.3	52.5%
Apply the most appropriate valuation method(s) and multiple(s) to create a price target(s) more accurate than consensus	VA: Value (stocks) accurately	9	8.5	94.4%

AnalystSalutions

"WOT?" or "Value Add?"

- At the request of others, participating in activities that do not support my professional tactics
- Fine tuning my financial forecasts based on new public information
- Initiating non-work activities during business hours (e.g. looking up sports scores, personal discussion conversation, etc.)
- Participating in widely-publicized conference calls/meetings/field trips arranged by others (e.g. quarterly conference calls)
- Reading company regulatory filings/press releases to get a general understanding of the company and its performance
- Reviewing emails and voicemails coming from anyone who is not one of my trusted information sources
- Reviewing news or other widely disseminated, publicly-available data

Do You Need to Reprioritize?

Review column "Future Priority Minus Past Priority"

- Positive scores are those that you want to increase
- Where will you find the time?
- Negative scores are those you want to reduce



AnalystSalutions

Part C

Part C: Do You Need to Re-Prioritize How You Spend Your Professional Time?

Activity	Tactic Category		Future	Future Priority Minus Past Priority		1
Validating my out-of-consensus financial forecasts with informed non-biased information sources	FA	3	7		4	
2. Conducting scenario analysis to stress-test my financial forecasts	FA	2	6		4	\prod
3. Meeting privately one-on-one with company management	GI	3	7		4	
4. Reviewing my investment thesis with a						

32. Reading publically-available information, seeking specific insights that pertain to a critical factor that is not understood by consensus	GI	9	7	-2
33. Accepting an inbound call/meeting from a sell-side analyst who has NOT helped in generating alpha in the past	WOT	9	7	-2
34. Reviewing emails and voicemails coming from anyone who is not one of my trusted information sources	WOT	6	3	-3
35. Reading se ll- side research in response to something that did not change consensus expectations for one of the companies in my universe	WOT	9	6	-3

Complete Your TAP

Section 3

Transformation Action Plan (TAP)



Instructions for the Transformation Action Plan (TAP):

- Throughout this workshop complete the TAP below
- Apply the key points after the workshop to help you improve your
- Step 1: <u>Define</u> and prioritize professional goals and tactics (Parts A & B online)
- Step 2: **E**stimate time spent on daily activities (Part C online)
- Step 3: Evaluate time spent on daily activities vs. the goals and tactics they support
- Step 4: Modify time usage when activities are not aligned with goals and tactics

AnalystSalutions

Prioritization Is About...

...Starting



...Stopping



QRC: Best Practices for Time Management

Quick Reference Card (QRC)

Best Practices for Time Management

AnalystSalutions

Best Practices for Playing Offense

- Maximize offensively-focused activities where proprietary insights are most likely to be found. Examples include:
 - Making outgoing phone calls to information sources who offer insights that improve forecast of critical factors
 - Participating in private or small group meetings with industry expert(s) or company management
 - Attending an industry conference where few financial analysts are in attendance
 - Review only what's changed (e.g. Bloomberg's Redline and FactSet's Blackline for quarterly reports)
- Stop or minimize defensively-focused activities such as those that may provide background but not alpha-generating insights. Examples include:
 - Quarterly earnings conference calls (reading the transcript can be done in half the time as listening to the call)
 - Reading regulatory filings (use services that highlight the information that has changed from the prior filing)
 - Sell-side-sponsored investor conferences (only attend if one-on-ones are available)
 - Site tour, especially when no senior management are present (if the tour doesn't cover a
 potential critical factor, spend time elsewhere)
- Participate in calls/meetings only when they directly pertain to your universe of stocks
- Hold a weekly meeting with yourself to evaluate the prior and upcoming weeks to ask "Am I filling my calendar with "offense" activities (those that help generate more stock ideas) and eliminating "defense" activities?"

Best Practices for Working Efficiently

- Batch process emails and return phone calls during 2-4 pre-blocked times each day
- Handle information only once (don't keep an email in your in-box for future reference)
 - Immediately convert all emails into tasks, calendar events or OneNote entries
 - Leave the office each day with an empty in-box
- Schedule your week in advance, noting important tasks and use the first 5–10 minutes of the day to plan
- Set time limits (mentally or in a calendar) before starting calls, meetings or tasks (and stick to the time limit)
- Actively utilize a to-do list that allows for prioritization and is accessible 24x7, including from mobile devices
- Utilize a note-taking system that can be quickly searched and cross referenced (e.g. OneNote or Evernote)
- Continually fine tune news filters (reduce the noise and increase critical factor insights)
- Learn Excel short-cuts if utilizing spreadsheets extensively
- When traveling, use time for research beyond reading the news or consuming publicly-available information
- Read transcripts rather than listen (or listen post call at 2x the speed)
- When possible, automate, delegate or outsource lower-valued activities that occur regularly

AnalystSalutions

Best Practices for Reducing Distractions

- Shut off all pop-up boxes (instant messaging, email, news and price alerts)
- Phone:
 - Pre-screen all incoming calls
 - Put phone in do-not-disturb mode when conducting research
- Wear a headset while at work
- Say "no" to others when
 - Meetings are ineffective or unnecessary
 - You are not the right person for the task
 - You need to focus on higher-priority tasks for the firm
- Immediately unsubscribe from all unwanted email distribution lists
- Tell those who interrupt you need to get onto a call
- Stand up when someone enters your office
- Put books or papers on your chairs to dissuade others from sitting

Methods to Avoid Psychological Pitfalls

- 1. Ask a trusted colleague or investment committee to put your thesis under scrutiny
- 2. If you're serious about changing a recommendation, ensure that you know the opposing view
- Any time you think "I can't lose", think through the downside or risks of the investment
- 4. Set aside time (once a month or quarter), and ask yourself, "If I switched firms tomorrow, would my initial stock recommendations at the new firm match my current ones?" If not, understand why.
- 5. Build and document your upside and downside scenarios while conducting the research (not after determining the rating)
- 6. If you've missed a substantial move in a stock, be hesitant to chase it such as jumping on the bandwagon. If get into the same trade as everyone else, ask "Who's going to take the other side of the trade when I want to get out?"
- 7. It's important to watch the daily movements in your stocks to understand investor sentiment, but don't let stock price movements alter your view about the fundamentals
- 8. When conducting extensive research on a topic, periodically ask, "What will I do if I discover nothing new?" It reduces the amount of time sunk into any one effort
- 9. When making a change to your thesis, ask where you are in the "greed vs. fear" spectrum compared with consensus. If you're in the same place, you may be following the herd.
- 10. When reviewing your comp table, hide the company names and tickers and look only at only the numbers to see if you have the same view when the names are revealed

100

AnalystSalutions

Specialists vs. Generalists

AnalystSalutions

Academic Research on Equity Research Analysts

- When researching analyst's performance (forecasts, price targets and stock recommendations) 99.9% uses sell-side analysts' output
 - Many control for biases such as investment banking and optimism
- High degree of rigor (peer reviewed)

102

AnalystSalutions

References

- Bae, K.-H., Stulz, R. M., & Tan, H. (2008). Do local analysts know more? A cross-country study of the performance of local analysts and foreign analysts. *Journal of Financial Economics*, 88(3), 581–606. https://doi.org/10.1016/j.jfineco.2007.02.004
- Boni, L., & Womack, K. L. (2006). Analysts, Industries, and Price Momentum. *Journal of Financial & Quantitative Analysis*, 41(1), 85–109.
- Busse, J. A., & Tong, Q. (2012). Mutual Fund Industry Selection and Persistence. *The Review of Asset Pricing Studies*, 2(2), 245–274. https://doi.org/10.1093/rapstu/ras004
- Casavecchia, L., & Ge, C. (2019). Jack of all trades versus specialists: Fund family specialization and mutual fund performance. International Review of Financial Analysis. https://doi.org/10.1016/j.irfa.2019.01.013

 Choi, H. M., & Gupta-Mukherjee, S. (2017). Analysts' Use of Industry-level and Firm-Specific Information: Implications for Information Production (SSRN Scholarly Paper No. ID 2692406). Retrieved from Social Science Research Network website: https://papers.ssrn.com/abstract=2692406
- Cici, G., & Rosenfeld, C. (2016). A study of analyst-run mutual funds: The abilities and roles of buy-side analysts. *Journal of Empirical Finance*, 36, 8–29. https://doi.org/10.1016/j.jempfin.2015.12.004
 Guan, Y., Wong, M. H. F., & Zhang, Y. (2015). Analyst following along the supply chain. *Review of Accounting Studies*, 20(1), 210–241. https://doi.org/10.1007/s11142-014-9295-6
- Jacob, J., Lys, T. Z., & Neale, M. A. (1999). Expertise in forecasting performance of security analysts. *Journal of Accounting and Economics*, 28(1), 51–82. https://doi.org/10.1016/S0165-4101(99)00016-6
- Kempf, E., Manconi, A., & Spalt, O. G. (2017). Learning by Doing: The Value of Experience and the Origins of Skill for Mutual Fund Managers (SSRN Scholarly Paper No. ID 2124896). Retrieved from Social Science Research Network website: https://papers.ssrn.com/abstract=2124896
- Mikhail, M. B., Walther, B. R., & Willis, R. H. (1997). Do Security Analysts Improve Their Performance with Experience? *Journal of Accounting Research*, 35, 131–157. https://doi.org/10.2307/2491458
- Tan, H., Wang, J., & Yao, L. (2019). Analysts' Technological Expertise (SSRN Scholarly Paper No. ID 2772363). Retrieved from Social Science Research Network website: https://papers.ssrn.com/abstract=2772363

Specialists Add Value

(1 of 2)

- Boni, Leslie et al, 2006
 - Although analysts tend to chase price momentum (to their detriment), their expertise for investors lies primarily in their stock picking ability to rank stocks within the industries in which they specialize
 - Within each industry of buying the firms net upgraded by analysts while selling short net downgraded firms in each calendar month yields 1.23% in the next calendar month, about 30% higher than a similar non-industry approach and returns have a one-month Sharpe ratio (excess return divided by standard deviation of returns) of 0.49, which is almost twice as high as a similar strategy that buys upgraded stocks and sells downgraded stocks regardless of industry
 - Our results are consistent with the characterization of analysts as good stock pickers within their industry of expertise, but not as useful sector rotation prognosticators
 - Stock upgrades and downgrades, aggregated across all analysts for stocks within each industry, provide a much better signal of future returns than does the standard non-industry approach
- Jacob et al. (1999) found that if an analyst follows a particular industry, his/her level of accuracy increases.
- Bae et al. (2008) found that the analysts residing in a country make more accurate earnings forecasts for firms operating in that country than those residing in other countries.

104

AnalystSalutions

Specialists Add Value

(2 of 2)

- Tan, Hongping et al. (2019) found technological expertise increases their earnings forecast accuracy and recommendation profitability, especially for firms with more intensive research activities and greater growth opportunities
 - The higher the correlation of patent outputs between the focal firm and an analyst's existing portfolio (excluding the focal firm), the greater the analyst's technological expertise on the focal firm. Intuitively, a greater overlapping in technology between the focal firm and those firms already covered by the analyst indicates greater technological expertise on the focal firm.
- Mikhail et al. (1997) found that analyst forecasts become more accurate as analysts' experience in following a specific firm increases. In contrast, there is little relation between forecast accuracy and analysts' concentration in an industry.
- Guan et al. (2015) found analysts who follow a covered firm's customer provide more accurate earnings forecasts for the supplier firm than analysts who do not.

Specialized Buy-side Analyst/PMs Add Value

A study of analyst-run mutual funds: The abilities and roles of buy-side analysts, (Cici, Gjergji et al, 2016)

- Analyzed 68 nontraditional mutual funds that are managed exclusively by buy-side analysts from 14 mutual fund families
- Buy-side analysts managing a mutual fund realize positive style- and risk-adjusted returns and generate superior risk-return tradeoffs
- Although some PMs benefit from closely following their buy-side analysts' ideas, research generated by these analysts is generally being underutilized by affiliated managers, which is consistent with longer tenured managers due to career considerations

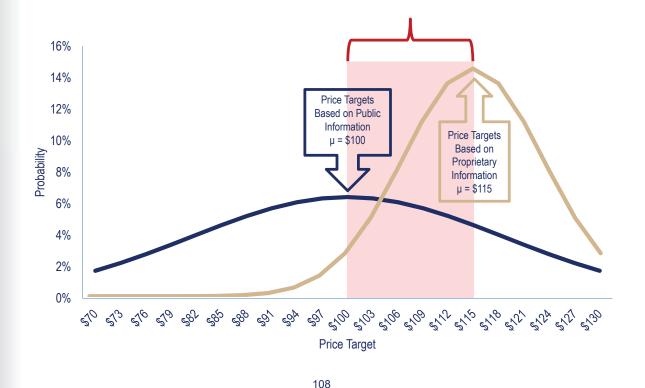
106

AnalystSalutions

Rationale for Specialization

- Many economists have recognized for some time that investors, rather than possessing unlimited processing capacity, are better characterized as being only boundedly rational (see Shiller, 2000 Sims, 2001)
- Even from casual observation, few traders can pay attention to all sources of information, much less understand their impact on the prices of the assets that they trade. Indeed, a large literature in psychology documents the extent to which even attention is a precious cognitive resource (see, e.g., Kahneman, 1973, Nisbett and Ross, 1980).

What Is Your "Edge"?



AnalystSalutions

The Case for Generalists

- Reduces the problem of "finding a buy" in the analyst's assigned sector(s)
- Some firms benefit from generalists
 - Some successful hedge funds have decentralized, "pod" research team which dilutes specialization
 - Bill Nygren's Thoughts
 - · "Oakmark benefits from having investment analysts who are generalists"
 - "Multiple analysts will follow stocks in the same industry. This enables each analyst to provide critical feedback about the others' investment ideas."
- In the book Range, David Epstein uses sports, chess and music to convey that having a generalist approach is better than specialists
 - "Research on creators in domains from technological innovation to comic books shows that a diverse group of specialists cannot fully replace the contributions of broad individuals. Even when you move on from an area of work or an entire domain, that experience is not wasted"
 - "There is nothing inherently wrong with specialization. We all specialize to one degree or another, at some point or other"

Research Would Suggest...

- Specialization is important, even for generalists
- If the generalist model is to remain, consider creating experts in more technical domains (e.g. technology, biotech)

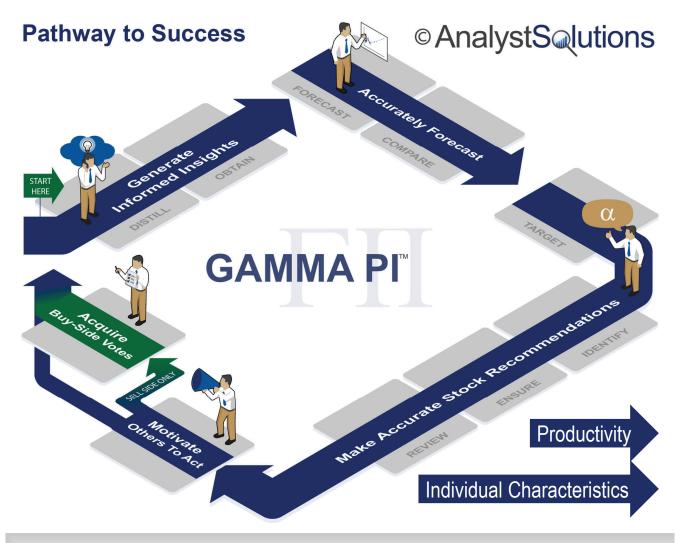
110

AnalystSalutions

One More Study...

Global Expertise of Financial Analysts (Ma, Markov and Wu, 2016) (unpublished)

- We describe the challenges of forecasting earnings in a globally interconnected marketplace
- A country's proximity to the US, importance to the firm, and visibility, as well as availability of more precise information about foreign country exposures, contribute to consensus forecast efficiency
- We identify a dimension of individual analyst global expertise — similarity in exposure between the firm and the rest of the firms in the analyst portfolio — and show that it contributes to forecast efficiency, accuracy, and informativeness, suggesting that globalization not only poses a challenge but also creates an opportunity for research providers and analysts to distinguish themselves



AnalystSalutions

Workshops that Address Universal Analyst Needs



Identify & Monitor a Stock's Critical Factors



Generate Differentiated Insights Through Better Discovery, Questioning and Influencing



Apply Practical Valuation Techniques For More Accurate Price Targets



Master the Stock Call Techniques of Highly Experienced Analysts



Communicate Unique Stock Calls Successfully So Others Take Action



Maximize Your Time for Alpha Generation



Develop and Deploy a Marketing Strategy that Maximizes Wallet-Share

Best Practices Bulletins

10 Steps for Equity Research Analysts to Perform Better



According to Reuters, one of its sister companies, Lipper, finds that roughly 85% of active large-cap stock funds are lagging their benchmarks year-to-date through late November. Investors are voting with their feet as shown by the \$206 billion of inflows into ETFs through the first 10 months of 2014 vs. only \$36 billion for the...

Portfolio Managers' #1 Frustration With Equity Research Analysts



While I was studying the Japanese language during college, I initially didn't take notice that the word "chigau" (5.5) is used to convey both "different" and "wrong." But after moving to Tokyo and learning the importance of conforming to the group, I developed a newfound appreciation for why these two English words require only one...

Read the Entire Bulletin >

114

