MorningstarSite Strategy Document

FEBRUARY 14, 2000

Executive Summary

With a well-known, well-respected brand and established relationships with individual investors, advisors, and financial institutions, Morningstar occupies a unique competitive position in the financial services marketplace. Aided by a recent infusion of capital from SoftBank, Morningstar has launched an effort to move its business to the Web. To accomplish the challenge, Morningstar engaged Sapient to help design and develop this Web presence and to help define and create an online experience that will continue to differentiate Morningstar as a premium brand in the financial services industry.

During the Discovery stage, which concluded in late October, a combined team of Morningstar and Sapient representatives identified and investigated the range of current opportunities for the advisor and institutional businesses. The team also created a business strategy for the initial phase of the Web implementation. Building on the Discovery project, the team began two additional projects:

- The Site Strategy project (the subject of this document), which focused on how many sites should be created, the features of those sites, as well as the vision for the experience the sites would create for Morningstar's customers.
- The Common Components Design (a separate deliverable), which focused on how to design a flexible technology infrastructure to support the needs of the advisor and institutional businesses.

As a result of the Site Strategy project, several recommendations have surfaced that will provide the foundation for the detailed design and implementation of the new advisor and institutional Web offerings.

The Solution: Two Sites

The combined Site Strategy team discussed several options for structuring Morningstar's Web presence. After considering the organization, financial, technological, and brand implications for each option, the team recommended two separate sites, one targeted to advisors and one targeted to institutions. Taking this path creates the opportunity to

leverage the strength of Morningstar's brand, to establish relatively distinct experiences for the advisor and institutional audiences, and to ease the transition of these business segments to the Web. This direction will not preclude potential reconfigurations of the sites in response to future evolutions of the Web and changing market/competitive conditions.

One site for advisors...

The advisor site would provide independent and captive advisors with online access to Morningstar data, tools, analysis, and commentary, all in a way that is robust yet easy-to-use.

On this new site, advisors could search for and compare investment information; track stocks and funds; create graphs and tables; and publish their own reports. The site would also offer electronic alerts based on user-defined criteria.

The advisor site would be a valuable resource for advisors struggling to expand their offerings and broaden their client relationships through more comprehensive planning services. Not only would advisors have access to tools and data, but also content such as editorial analyses, news, and bulletin boards to provide a larger informational context. Because the site would focus on the specific needs of advisors, it also would include features such as access to continuing education and, in the future, professional referral networks.

The site would generate revenues from direct sales of premium content (including tools, client support materials, and educational offerings) to independent agents and corporate accounts. Additionally, it would generate revenue from online advertisers and sponsors. Morningstar could also sell valuable site user information to institutional sponsors. As a way to attract customers, some content should be free to all visitors, while other content should be free only to registered users.

...and a different site for institutions

On the institutional site, customers could access Morningstar data, analysis, and commentary as well as other investment universe data. This information should be much more indepth than that available to advisors.

Most of the data analysis features from the advisor site would also be available on the institutional site with the added ability to download data sets in various formats. The site would also allow institutions to access valuable information about registered and premium users of Morningstar's advisor site.

The institutional site would generate revenues from direct sales of premium content (including data, tools, and special prepackaged reports) to institutional accounts. Again, to attract users, some content on the institutional site would need to be free, including relevant institutional content that is currently offered at no cost on competitive sites and other Morningstar sites.

Why Two Sites?

There are a number of benefits to be gained creating separate sites for advisor and institutional customers

Benefits of the Advisor Site

- Transitioning the existing, software-based Principia product to the Web would result in expanded distribution capability combined with a lower variable cost of providing this information and service.
- A separate site focused on advisor needs could direct advisors away from the retail site. By creating a separate and distinct Web presence for this audience, Morningstar could preserve discrete advisor revenue sources and combat current revenue erosion resulting from advisors buying retail-focused products.
- The modularity of the site means that product offerings can be bundled to address the needs of captive advisors within specific institutions. When marketed directly to corporate purchasing "decision makers,"



- these targeted offerings represent an opportunity to penetrate the captive advisor market.
- An aggregated audience of independent advisors is extremely attractive to institutional advertisers and sponsors. Successful aggregation of this audience will provide new revenue opportunities from advertising and corporate sponsorship of online information, events, tools, and classes.

Benefits of the Institutional Site

- The institutional site would allow Morningstar to transition its existing data services functions onto the Web, resulting in a lower variable cost of providing this information and service.
- Institutional customers can self-serve, including Building and saving their own queries, or they can contract with Morningstar for help. In either case, query-building is simplified, reducing or eliminating associated costs.
- Having a separate site for institutional customers, combined with an offline, direct sales process, should help preserve discrete institutional revenue sources, and combats the current revenue erosion resulting from institutional purchase of advisorfocused products, provided that clear differentiation of the products incremental value can be conveyed to the audience on the Web.
- Product offerings can be bundled and tailored to target specific institutional customers, including investment management, marketing, and fiduciary users.
 The result is deeper penetration within existing institutional accounts.

Other Benefits

 This solution drives product standardization, while modularity of the sites provides for enhanced user customization. Product standardization allows for better understanding of costs and rationalized pricing of products and services, while the modularity of the sites preserves users' ability to select and buy only what they want.

- The modularity of these sites also provides for rapid assimilation of new institutional- and advisorfocused products and services, including those that are provided by partners and alliances.
- A common, flexible infrastructure supporting institutional tools facilitates the development of tool standards. In the future, tool standards can potentially be used to drive online integration of institutions and independent advisors. This is a valuable proposition to institutions, which are looking for forums and vehicles to solicit non-captive advisors. Tool standards contribute to Morningstar's longer-term strategic objective of creating a marketplace.

What's Next?

This Site Strategy document provides recommendations for the design and implementation of the advisor and institutional sites. For information about project plans and the approach for future work, please refer to the formal proposal document, "Web Strategy Implementation Stage 3 Proposal", which will be delivered under separate cover.

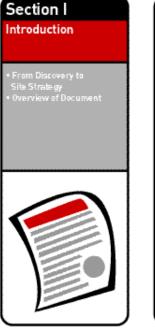


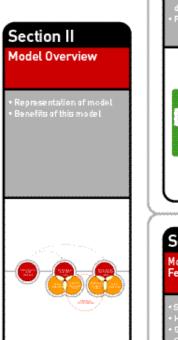
Contents

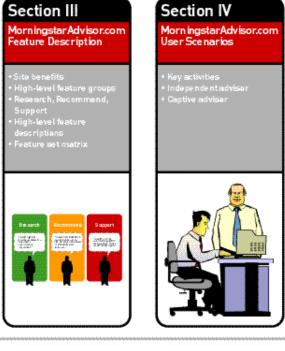
- I. Introduction
- II. Model Overview
- III. Advisor Features
 - Research Domain
 - Recommend Domain
 - Support Domain
- IV. Advisor User Scenarios
- V. Advisor Site Map
- VI. Institutional Features
 - Gather Domain
 - Understand Domain
 - Communicate Domain
- VII. Institutional User Scenarios
- VIII. Institutional Site Map
- IX. Next Steps

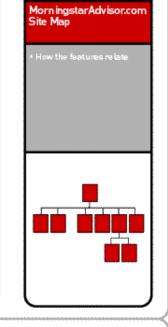


Visual Table of Contents

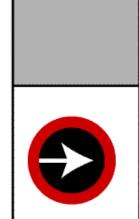








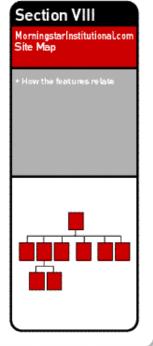
Section V



Section IX

Next Steps







Section 1

Introduction



Introduction

Beginning in late November 1999, and continuing for a total of nine weeks, a team of representatives from Morningstar and Sapient worked together to further define Morningstar's advisor and institutional Web presences. This project, called Site Strategy, incorporated work from the previous Discovery phase with additional research and design. The result is a high-level plan for the design and implementation of two Web sites, which we preliminarily refer to as MorningstarAdvisor.com and MorningstarInstitutional.com.

Why a Site Strategy project?

Where the Discovery phase focused on Morningstar's total Web strategy, Site Strategy began shaping the individual advisor and institutional presences. The assessments and analyses performed in this project provide critical information about how the sites should be constructed, how they should relate to users and to each other, which features they should offer, and how they should be packaged. Site Strategy ensures that in designing the sites, Morningstar has considered user need, technology constraints, and brand positioning alongside their own business requirements. This multidisciplinary perspective begins to establish a solid foundation upon which a final solution may be built.

What did we accomplish during Site Strategy?

This Site Strategy project followed a five-week Discovery phase that concluded at the end of October 1999. Some of the work from the Discovery phase, including a statement of Morningstar's long-term e-business goals, provided important strategic context for work performed during Site Strategy. The team used other Discovery work, such as client interviews and a broad industry analysis, to construct initial hypotheses and basic assumptions about site features and underlying site architecture. The efforts of this phase then concentrated on fleshing out the basic site features and architecture assumptions and hypotheses. Sapient's Experience Modeling discipline spent time with Morningstar's customers to understand more about their work processes and identify opportunities for Morningstar. As a team, Morningstar and Sapient evaluated alternative site models

and selected a structure from which to begin planning the site. We defined and prioritized features for the sites. Finally, working definitions of the information and technical architecture, content strategy, branding strategy, and site pricing models were created. These definitions make up the content of this document and are meant to inform, not determine, subsequent design and implementation activities.

What does this document include?

The main sections of this document provide:

- An **overview** of the suggested structure of Morningstar's Web presence.
- Descriptions of the recommended **features** for each site.
- Advisor and institutional **user scenarios** that illustrate how customers might use the sites.
- Preliminary advisor and institutional site maps.

The appendix includes assessments and recommendations relevant to:

- Business implications, including pricing strategy, customer transition and acquisition, and ongoing development, operation, and management of these sites.
- Digital **brand strategies** for both the advisor and institutional sites.
- Brief competitive analysis of potential competitor sites to identify both online opportunities and best practices.
- High-level recommendations about the creation of content for advisors and institutions.
- The current Principia product, including a general assessment of the existing software-based product and expected issues and challenges associated with putting this type of application on the Web.
- A summary of the preliminary **front end bench-marks** of the proposed sites.

- Other site **model options** that were considered.
- A summary presentation (created as the result of a one-day strategic working session) that describes a potential, longer-term digital business vision for Morningstar and aligns high-level financial, market, brand, organizational, and technology strategies.



From Discovery To Define

This table shows how information from Discovery was used in the Site Strategy project.

| DISCOVERY STAGE | SITE STRATEGY STAGE |
|-----------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Described and validated Morningstar's e-business strategy. | Translated Morningstar's overall e-business strategy into goals and objectives for the advisor and institutional presences. |
| | Developed an overall strategy statement that incorporates relationships among Morningstar's three major audience segments. |
| | Articulated advisor and institutional site pricing model. |
| Researched Morningstar's business environment and organizational structure. | Identified preliminary financial, market, brand, organizational, and technology strategies that align with the vision. |
| | Defined a site structure that supports and enhances Morningstar's business environment and organizational structure. |
| | Assessed Morningstar's existing resources and processes, identified reusable assets and gained a better understanding of the level of effort for building the sites. |
| Formulated a plan for executing Morningstar's e-business strategy. | Defined scope and developed estimate for the design and implementation of the new sites. |
| | Created preliminary customer transition and acquisition strategies. |
| Identified features for Morningstar's advisor and Institutional presences. | Prioritized features for Morningstar's advisor and institutional presences |
| | Identified mid-level requirements for implementing these features. |
| Identified Morningstar's target advisor and institutional audiences and outlined their workflows. | Performed ethnographic research of advisors and institutional employees to understand how they perform their work and how they use Morningstar products. |
| Interviewed advisors and institutional employees to understand their perception of Morningstar and identify explicit needs. | Reviewed Discovery findings to uncover areas for further exploration. |
| | Interpreted research findings and iterated on the advisor workflow process developed in Discovery. |
| Analy zed Morningstar's competitive landscape to understand business models of some Morningstar competitors. | Performed low-level competitive analysis to identify best-of-breed strategies and understand: • How competitors provide services to advisors and institutions. • Competitors' online brand positioning. • Industry visual design standards. • Competitive content offerings. • Hierarchical and navigational standards. |
| | Identified several ways to structure Morningstar's online presence and selected and defined the preferred model. |
| | Defined the preferred model. |
| Analyzed Morningstar's current brand position in the advisor and institutional marketplaces. | Identified unique characteristics of both the advisor and institutional online brands. Developed branding strategies that will help focus the creative and technical development of the sites. |

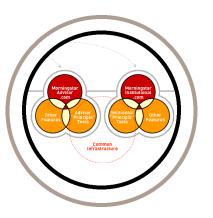


Section 2

Model Overview

A "model" demonstrates how Web sites and sub-sets relate to and interact with each other.

Morningstar selected model that provides separate sites, and therefore distinct experiences, for each of its audience segments.

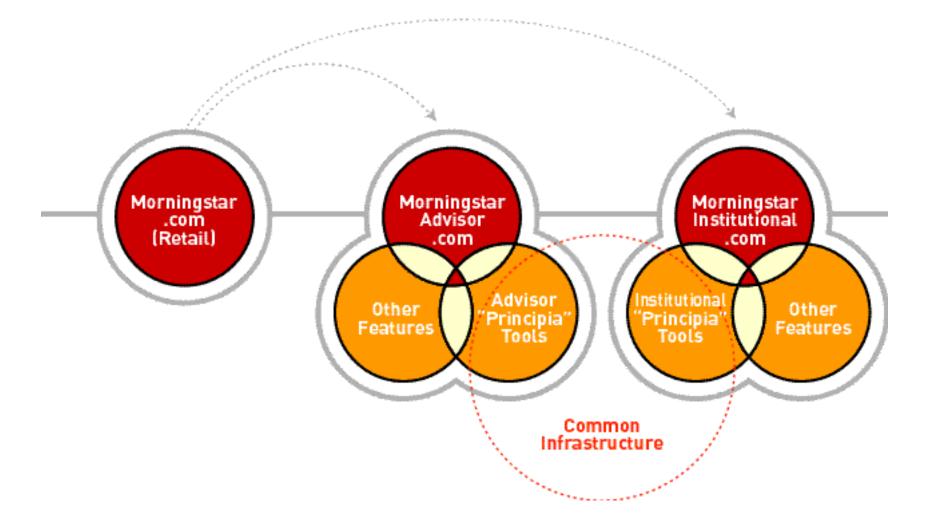




Model Overview

Site Strategy examined several methods of structuring Morningstar's Web presence, taking into consideration audience needs, Morningstar's organizational requirements, and Morningstar's business requirements, among other factors. After a review of the options presented, Morningstar chose this model, an audience-based approach that allows users to select Morningstar services based on their immediate needs. The other models that we evaluated are included in Appendix G of this document.

For the time being, Sapient and Morningstar have chosen to refer to the new sites as MorningstarAdvisor.com and MorningstarInstitutional.com. Incorporating the Morningstar name into the URL should help users identify the value they know Morningstar provides with their experience on the new sites. The official names for the new offerings will be determined at a later date.



Model Overview

Why This Model Is Right for Morningstar

Preserves existing revenue sources

Currently, many advisors are taking advantage of the free information available on Morningstar.com. By creating a new site specifically for advisors, Morningstar may be able to recapture revenue that may have been lost. In much the same way, institutions are using Principia to get information at a reduced cost. A site targeted to them, combined with a sales process that happens offline, could preserve institutional revenues.

The Web helps Morningstar use resources effectively

MorningstarAdvisor.com and MorningstarInstitutional.com would share some common infrastructure, which would support lower-level standards for tools. Potentially, this could facilitate future online integration of institutions and independent advisors. Not only do tool standards contribute to Morningstar's vision of a marketplace, but provides a valuable forum for institutions to solicit non-captive advisors.

Transitioning Principia functionality to the Web means that it will be more easily accessible and available to more customers. This move online should also allow for product standardization, which will better enable Morningstar to measure costs and price its products and services. Ultimately, Morningstar should experience lower variable costs associated with providing these services.

Provides a greater breadth of revenue opportunities

This model enables Morningstar to bundle products and services to address the specific needs of an audience. Morningstar may be able to penetrate the captive advisor market if Morningstar markets these offerings directly to corporate purchasing decision makers. Additionally, an aggregated audience of independent advisors may attract advertising and corporate sponsors of online information, events, tools, and education.

Builds sub-brands supported by the equity of the Morningstar brand

Morningstar's brand is highly recognized among advisors and institutions. This will enable Morningstar to create durable sub-brands for the new advisor and institutional sites. Having sub-brands means that each brand may grow and expand with a minimal effect on other sub-brands, while at the same time enhancing the Morningstar master brand. This strategy will also differentiate the new brands from the competition in the minds of advisors and institutions. By creating brands targeted to the needs of an audience, Morningstar may provide a meaningful experience for them that enhances Morningstar's own credibility.

Why This Model Is Right for Advisors

Focuses on advisor's unique needs

Each advisor has a unique way of working and each client has unique expectations for the advisor. This model's modularity allows advisors to pick and choose the services that are relevant to them without forcing them to wade through excess data.

Provides a range of information and services in one place

Clients are expecting more service from advisors, which means advisors need to educate themselves on a broader scope of subjects. The more MorningstarAdvisor.com can support the range of activities advisors perform, the more advisors will be able to effectively extend their own skill set and relationships. This new site should not only provide the data that advisors need, but also context for that data through features such as articles and bulletin boards, Continuing education also provides a way for advisors to remain viable as their services become more and more commoditized.

MorningstarAdvisor.com could fulfill an important unmet need for advisors by providing both the information and tools they need, all in one, easy-to-use environment.

Eases the transition between software and the Web

Current Principia users have invested time and effort in learning how to use the latest software package, so Morningstar could face a challenge in migrating advisors' Principia use to the Web. Because of their familiarity with the Principia brand, its initial presence on the site should help advisors more comfortably transition to the online experience. Additionally, the benefits of using the Web to access this information—timeliness and immediate availability—are invaluable to advisors and could eventually outweigh the tradeoffs. The challenges of bringing Principia online are discussed further in the Appendix E.

Why This Model Is Right for Institutions

Provides an environment suited to the particular needs of institutions

The needs of institutional customers are very different from those of advisors. Yet institutions are using advisor products, which fall short of institutions' needs. Providing a separate environment where institutions can obtain Morningstar's data should encourage institutions to more highly value this data. Additionally, the services planned for the institutional site will provide access to the depth and breadth of information they need. This site will allow institutions to "self-serve," which includes saving collections of data for future use.

Uses the speed of the Web to provide accurate information

Moving Morningstar data to the Web will offer institutions real-time access to the data they need. They use this information to make decisions about their business, so important the accuracy of the information is critical. The Web also offers timely resolution to problems as institutions adjust data inconsistencies and miscalculations. Dynamic communication will become the norm as customers prioritize data and Morningstar successfully delivers important information specific to each account.



Section 3

Advisor Features

An information architecture for the Web site begins with understanding the features of the site, how those features relate to each other, and how users would interact with those features.





Advisor Feature Domains

Site Benefits

MorningstarAdvisor.com should offer the following benefits to its customers:

- Comprehensive investment data services, including:
- Risk/goal assessments
- Asset allocation
- Client presentation tools such as graphs and tables
- Portfolio creation, both real and hypothetical
- Security execution
- Portfolio accounting
- End-to-end customer management solutions, from initial risk assessment to security execution and continuous portfolio monitoring
- Access to comprehensive Morningstar investment data, including:
- NASD-compliant information
- Investment detail information such as holdings and managers
- Morningstar ratings
- Morningstar style categories
- Timely access to Morningstar data updates
- Ability to set up customized alerts for information important to you and your customers. Keep track of:
- The investments you offer
- Industry news relevant to you
- Competing fund performance
- Client portfolio holdings
- Customized searches that you can save
- Access to investment company qualitative information (marketing materials, manager strategies, etc.)
- Access to other advisors to facilitate the sharing of ideas
- Access to industry experts an practice management ideas
- Access to lifetime learning resources

Feature Domains

These diagrams are called feature domains. They represent high-level collections of features in MorningstarAdvisor.com that fulfill shared needs of Morningstar's advisor audiences.

Morningstar has divided the advisor audience into two subgroups: independent advisors and captive advisors. These audiences perform three basic actions: research, recommend, and support. The satisfaction of these actions drives the tasks that advisors will perform online.



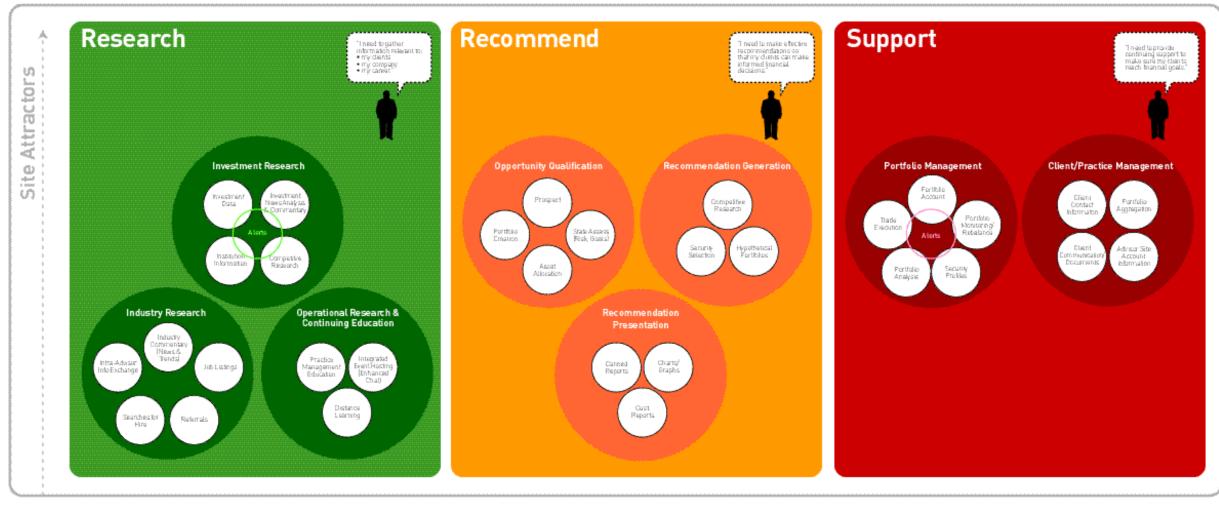
| ADVISOR AREA OF WORK | DOMAIN |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| Maintaining a base of information and knowledge to help in all aspects of advisor work, including investment research and continuing education. | Research |
| Winning clients and generating business opportunities by showing you are the right advisor to manage their investment strategy. | Recommend |
| Retaining client relationships through monitoring portfolios and responding to changes in client situations. Maintaining business operations through managing process and information. | Support |

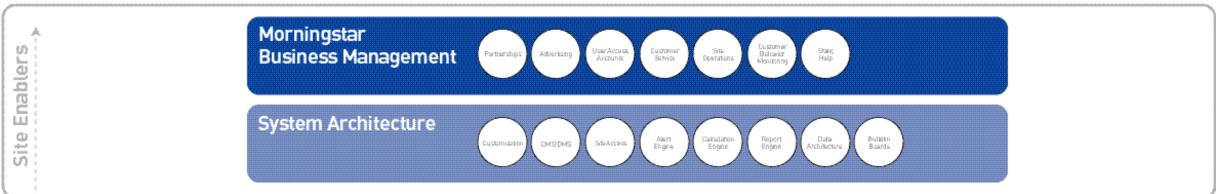
This section of the document also describes possible features for MorningstarAdvisor.com. Please refer to the Web Strategy Implementation Stage 3 Proposal to understand what is in scope.



Advisor Features Domain Description

Each domain breaks down into gradually smaller groups of features, and eventually into discrete tasks. While these domains do not represent a hierarchy or navigational structure, they will provide the foundation for MorningstarAdvisor.com's information architecture.





The Research domain includes features that allow advisors to accumulate and assess various types of information. Advisors' research generally falls into three topics, represented here as subdomains:

Investment research

- Raw investment data pertaining to advisors' own offerings, their clients' current holdings, and investments in general.
- Investment news, analysis, and commentary pertaining to advisors' own offerings, their clients' current holdings, and investments in general.
- Information about trends in the advisor business itself.

Industry research

- Marketplace information about people/organizations who offer relevant services.
- Job opportunities for advisors from around the industry.

Operational research and continuing education

• Educational courses and information to help them run their businesses more effectively extend their scope and level of service.

Investment research features

The following site features support the Research domain as part of investment research.

Investment data

- Access to Morningstar mutual fund, closed-end fund, stock, and variable annuity data.
- Access to detailed information about investments, as currently represented in Principia Pro.
- Data notifications and alerts. Users would be notified about the latest data changes on investments of their choice. Users would be able to indicate which investments or data elements (Morningstar rating, fund manager) they want to monitor. When changes occur, the system would notify the user of the change.

Investment data layout customization

- Create customized views of Morningstar investment data similar to what is available in the Principia Research mode.
- Determine the types of mutual fund categories (domestic stock funds, international stock funds, etc.) they want to display.
- Select the data elements (fund name, Morningstar category, Morningstar rating) they want to display.
- Set the order in which the data elements display.
- Sort the data displayed by the data elements they choose.

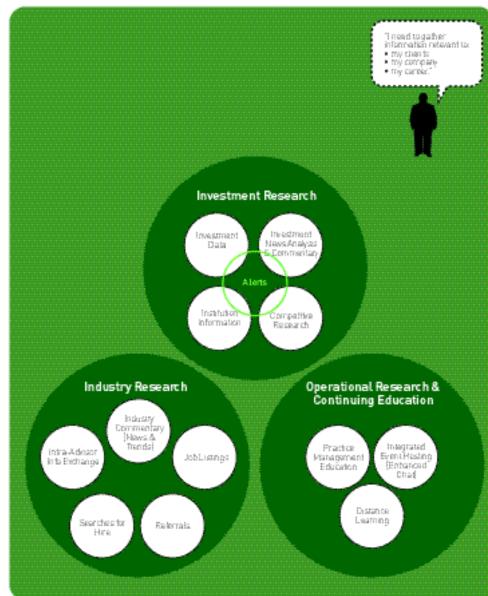
Investment data search

- Search Morningstar investment data
- Create complex searches using multiple operators, fields, conditions, and relational variables (and, or, not, less than, greater than, equal to).
- Create and save search criteria.
- Data notifications and alerts. Users would be notified about the latest data changes to the results of their search criteria. Users would be able to indicate which searches they want to monitor. When changes occur that affect the number of results for a given search, the system would notify the user.

Investment news and commentary

- Data notifications and alerts. Users would be notified about the latest commentary and news that is relevant to them (what is being said about their business and their competitors). Users would be able to indicate "keywords" that they want to monitor. When new information is available containing these "keywords," the system would notify the user.
- Access to current and archived Morningstar Pages, Category Overviews, Summary Sections and Commentaries.
- Access to special research, reports, and editorials







Advisor-to-institution information sharing

As the source of many of the offerings advisors recommend to clients, institutions, particularly fund companies, are another valuable source of investment information.

- Institutions can post information to the advisor community. Also known as the Virtual Trade Show, this
 feature is a mechanism for advisors and institutions
 to communicate more effectively.
- Send requests for additional information. Advisors would be able to send requests for additional information to the institutions.
- Data notifications and alerts. Users would be notified about the latest institution information that is relevant to them. Users would be able to indicate which institutions they want to monitor. When new information is available from these institutions, the system would notify the user.

Competitive research

The ability to compare the same data points across investments is essential to understanding the relative market position of offerings and investments. The site would offer tools that allow users to compare data points across investments within the same universe. Methods for comparing data include creating charts/graphs (reference the Recommend domain).

Intra-advisor information sharing

Other advisors could be another source of valuable information. The site would offer forums including bulletin boards for advisors to communicate with each other.

Printing information

Users would be able to print information. The use of .PDF files and other tools would be used to maintain formatting.

Industry research features

The following site features would support the Research domain as part of industry research.

Job listings

MorningstarAdvisor.com would be a source of career opportunity information. Users would be able to view classified ads from advisor firms and institutions seeking personnel.

Services for hire

The ability to connect with someone who provides services or has capabilities that might enhance an advisor's offerings is important in the time of changing client needs. Services for hire would provide a space for people with special and even tangential capabilities, including lawyers, accountants, insurance agents and others, to network with advisors.

Operational research and continuing education features

The following site would support the Research domain as part of operational research and continuing education.

Practice management education

- Access to the latest information regarding Morningstar investment methodology
- Access to educational articles:
- Technical reviews
- Best practices
- Compliance
- Etc.

Integrated event hosting (enhanced chat)

- Access to industry thought leaders:
- Basic chat capabilities
- Streaming video technologies and other interactive media

Distance learning

- Access to the latest educational courses on the tools that advisors use.
- Access to certification courses.

Feature opportunities

The following features could be added to MorningstarAdvisor.com in the future:

Referrals

This feature allows Morningstar to connect retail investors to professional investors. Retail investors would be able to request services. Those requests would be routed to professional investors on MorningstarAdvisor.com.

Calendar of events

A calendar of events would list Morningstar and industry events that relate to advisors.

Polls

Polls are an interesting way to gauge the attitudes advisors have about particular topics Polls also allow them a method of actively participating in the content available on the site.

Advisor ratings of investments

Similar to the Morningstar rating, but less scientific. Advisors would be able to rate investments and investment companies on such issues as service level, fees, etc. It is another way for advisors to exchange information and participate in the community.

Fund flows: What are advisors doing?

The ability of advisors to see what fund managers are doing on the site is valuable intelligence information. This would make certain customer behavior data points public. An example of data points that could be made public are "top ten investments viewed" or popular courses.



The following charts provide additional detail on the site features. Each line item has been evaluated from the different points of view of the Morningstar business, the user the brand, and the marketplace (competitive value).

Each feature has been ranked on a scale from 5 to 1

- \bullet A rating of 5 indicates that the feature s a must have
- A rating of 1 indicates that the feature s a nice to have

The numbers 29 and 14 beneath the column headings indicate the relative weighting of each point of view.

| | - | | | | | | | | | | | Lisc | Disc | | |
|-----------|------------------|---------------------------------------|-------------------------------|----------------------|------------------------------|-----------|------------|--------------|-------------|-----------|--------------|----------|-------|--------|-------|
| | | | | | | Bus 29 | User 29 | Tech 14 | Brand 14 | Mkt 14 | Total 100 | | Phase | Disc # | Notes |
| ment data | | | | | | | | | | | | | | | 1 |
| | view datall - us | ers should be able to v | law detailed information ab | out investments | | 5 | 5 | ************ | 5 | - 5 | 430 | 1 | 1 | 1 | |
| | | | d be able to view detailed it | | poks | 5 | - 5 | | 5 | - 5 | 430 | 1 | + | | |
| | | · · · · · · · · · · · · · · · · · · · | ars should be able to acces | | | 5 | - 5 | | 5 | - 5 | 430 | 1 | 1 | | |
| | | | Quicidake | | | 5 | - 5 | 1 | 5 | - 5 | 430 | MH. | 1 | 100 | |
| | | | Snapshot | | | 5 | - 5 | | 5 | 5 | 430 | 1 | | 1 | |
| | | | Financial statements 1 | | | 5 | - 5 | | 5 | - 5 | 430 | 1 | | | |
| | | | Financial statements 2 | | | 5 | - 5 | T | 5 | - 5 | 430 | 1 | 1 | | |
| | | | Company performance | | | 5 | - 6 | | - 6 | - 6 | 430 | I | 1 | | |
| | | | Block performance | | | 5 | - 5 | | 5 | - 5 | 430 | 1 | | | |
| | | | Valuation | | | 5 | - 5 | | 5 | - 5 | 430 | 1 | | | |
| | | | Ownership | | | 5 | - 5 | | - 5 | - 5 | 430 | | | | |
| | | | Price Graph | | | 5 | - 5 | | 5 | - 5 | 430 | | | | |
| | | | modify | riow | | | 5 | | 5 | - 5 | 430 | l | | | |
| | | print - us | ars should be able to print t | he stock detail info | rmation. | 5 | 5 | | 5 | - 5 | 430 | l | | | |
| | | | modify | ricane : | | 5 | - 5 | | 5 | - 5 | 430 | | | | |
| | - ITI | utuai fund detail - usars | should be able to view del | alled information ab | out mutualfunds | 5 | - 5 | | 5 | - 5 | 430 | I | 1 | | |
| | | view - use | ars should be able to acces | sthe following view | v of mutual fund information | 5 | - 5 | | 5 | - 5 | 430 | | | | |
| | | | Quicktake | | | | - 5 | | - 5 | - 6 | 430 | MH: | 1 | 100 | |
| | | | subaccourt holdings | | | 5 | 5 | | 5 | 5 | 430 | | | | |
| | | | Morningster page | | | 5 | 5 | | 5 | 5 | 430 | . | | | |
| | | | magnif | | | 5 | - 5 | | - 5 | - 5 | 430 | . | | | |
| | | | Summary section | | | 5 | - 5 | | - 5 | - 5 | 430 | I | | | |
| | | | Comment arise | | | | 5 | | 5 | - 5 | 430 | . | | | |
| | | | Industry trends | | | 5 | - 5 | | - 5 | - 6 | 430 | | | | |
| | | | Fund spallights | | | 5 | 5 | | 5 | 5 | 430 | I | | | |
| | | | Performance data | | | 5 | - 5 | | 5 | 5 | 430 | ļ | | | |
| | | | Indexes | | | 5 | - 5 | | 5 | - 5 | 430 | . | | | |
| | | | Morningstar categories | | | 5 | 5 | | 5 | - 5 | 430 | ! | | | |
| | | | Basic Datel | | | 5 | 5 | | 5 | 5 | 430 | L | | | |
| | | | Investment approach | | | 5 | - 5 | ļ | 5 | - 5 | 430 | ļ | | | |
| | | | Risk/Return profile | | | | - 5 | | - 5 | - 5 | 430 | | | - | |
| | | | Basic performance | | | - 5 | - 5 | | - 5 | - 6 | 430 | | | | |
| | | | Growth of 10K graph | | | 5 | - 5 | - | 5 | 5 | 430 | ! | | | |
| | | | Portfolio (Advanced An | alytics) | | 5 | - 5 | _ | 5 | 5 | 430 | ! | + | | |
| | | | Composition graph | | | 5 | 5 | | | 5 | 430 | l | | | ļ |
| | | | Stock statistics graph | | | 5 | - 5 | + | 5 | - 5 | 430 | - | | - | |
| | | | Sector weightings grap | | | 5 | - 5 | + | 5 | - 5 | 430 | ! | | | |
| | | | modify | | | 5 | 5 | | 5 | 5 | 430 | 1 | - | - | |
| | | | Regional exposure grap | | | - 5 | - 6 | - | - 5 | - 6 | 430 | ! | + | | |
| | | | Regional exp - history o | raph | | 5 | - 5 | - | 5 | - 5 | 430 | | | | |
| | | | Bond quality | | | 5 | 5 | | 5 | - 5 | 430 | ! | + | | |
| | | | Rolling return - graph | | | 5 | - 5 | | 5 | - 5 | 430 | ! | | | ļ |
| | | | modify | | | 5 | . 5 | + | 5 | 5 | 430 | - | | - | |
| | 1 | | set oue | om time periods | | 5 | 5 | 1 | 5 5 | 5 | 430 | | | 1 | |

| nt Research Subdon | nain | | | | | | | | | | | |
|-------------------------|------------------------------------------------------|--------------------------|-----------------------|-----|-------------|--------------------------------------------------|-----------------------------------------|-----------|----------|-------------|------------------|----------|
| | | | | | | | | | | | | |
| | med | Ty viae | | - 5 | - 5 | | 5 | - 5 | 430 | | | |
| | set r | ustom time periods | | - 5 | - 5 | | 5 | - 5 | 430 | | | |
| | Rolling return - risk s | | | 5 | - 5 | | 5 | - 5 | 430- | | | |
| | Performance | | | 5 | 5 | | 5 | - 5 | 430 | | | |
| | Trailing periods grap | h | | 5 | - 6 | † | 6 | - 6 | 430 | | 1 | |
| | | Ty viour | | 5 | 5 | *************************************** | 5 | 5 | 430 | | | |
| | · | ustom time periods | | 5 | | | | 5 | 430 | ! | + | |
| | • | | | 5 | 5 | + | - 5 | 5 | 430 | | | |
| | Nominalivs real return | | | 5 | 5 | | 5 | 5 | 430 | ! | | <u> </u> |
| | | fy viae | | | *********** | | *************************************** | | | | · | · |
| | | ustom time periods | | - 5 | - 5 | | - 5 | - 5 | 430 | — | | |
| | Investment style table | a | | | - 6 | | - 5 | - 5 | 430 | ! | | |
| | History tables | | | - 5 | - 5 | | 5 | - 5 | 430 | | | |
| | History graphs | | | - 5 | - 5 | | 5 | - 5 | 430 | | | |
| | Analyses | | | - 5 | 5 | | - 5 | - 5 | 430 | | | |
| | Analyst reviews | | | 5 | 5 | | 5 | . 5 | 430 | | | |
| | Manager profile | | | - 5 | - 5 | | 5 | - 5 | 430 | L | | |
| | Category overview | | | 5 | - 6 | | 5 | - 5 | 430 | | | |
| | Operations | | | - 5 | - 6 | | 5 | - 6 | 430 | | | |
| | Nuts & bots | | | 5 | - 5 | | 5 | - 5 | 430 | | | |
| | Fees & expenses | | | - 5 | - 5 | | - 5 | - 5 | 430 | l | İ | |
| | print - users should be able to pri | nt the stack datail info | malin | 5 | - 5 | | - 5 | - 5 | 430 | l | † | |
| variable annui | lestife policy detail - users should | | | 5 | 5 | | 5 | 5 | 430 | | † | |
| N AN INCLUDE AN INCLUDE | | | | 5 | 1 - | | | 5 | 430 | | | |
| | view - users should be able to ac- interest rates | assisted tologing risk | vis di Mari postdies. | 5 | 6 | + | 5 | 5 | 430 | · · · · · · | · | <u> </u> |
| | | | | - | *********** | | 5 | ********* | * | l — | | |
| | policy information | | | - 5 | - 6 | | | - 5 | 430 | ļ | | |
| | subaccount informati | on | | - 5 | - 5 | - | - 5 | - 5 | 430 | ļ | | |
| | subaccourts | | | 5 | - 5 | | - 5 | - 5 | 430 | ļ | ļ | |
| | avar | AGR | | 5 | 5 | | 5 | 5 | 430 | | | |
| | grapi | Δ | | - 5 | - 5 | ļ | 5 | - 5 | 430 | L | | |
| | | see graphs | | 5 | 5 | <u> </u> | 5 | 5 | 430 | . | | |
| | vier | | | - 5 | - 6 | | 5 | - 5 | 430 | | | |
| | | investment ap | proach | - 5 | - 5 | | 5 | - 5 | 430 | | | |
| | | basic perform: | ance | - 5 | - 5 | | 5 | - 5 | 430 | | | |
| | | growth of \$100 | | - 5 | - 5 | | 5 | - 5 | 430 | l | | |
| | | | account holdings | 5 | - 5 | | 5 | - 5 | 430 | | | |
| | print | | 1 | 5 | - 5 | T | 5 | - 5 | 430 | | 1 | 1 |
| | enalysis (policy desc | | | 5 | 5 | 1 | 5 | 5 | 430 | | | |
| | print - users should be able to pri | | Listormation | 5 | 5 | ****** | 5 | 5 | 430 | l | † | |
| | · i ······· | | | - 5 | 4 | | E | 5 | 430 | l | + | - |
| crosect-end tun | ds dstail - users should be able to | | | | - | _ | 5 | | | ···· | - | - |
| | view - users should be able to ac | assime to rosing view | vs is crosed-endrunds | | | ******** | ********** | | 430 | | | |
| | investment approach | | | - 5 | 5 | | - 5 | - 5 | 430 | . | | |
| | basic performance | | ļ | - 5 | - 5 | | - 5 | - 5 | 430 | ļ | | |
| | growth of 10K graph | | | 5 | 5 | | 5 | | 430 | - | | |
| | complete fund holdin | gs | | 5 | - 5 | | 5 | - 5 | 430 | . | | |
| | graph | | | - 5 | - 5 | | - 5 | - 5 | 430 | | | |
| | see graphs | | | 5 | - 5 | | 5 | - 5 | 430 | L | | |
| | | | | | | | | | , | | | 1 |
| | premium/discount gr | aphs | | - 5 | - 5 | | 5 | 5 | 430 | ı | | |

| earch Subdomain | | | | | | | | | | | |
|-----------------------------------------------------------------------|---------------------------------------------------|------------|-----|--------------|-------------|-------------|-----|----------|---------------------------------------|---------|----------------|
| | | | | | | | | 1 | | 18, 21, | T |
| data elets - users should be able to assign alerts to investment data | · | 5 | 5 | | 5 | 2 | 388 | | | 20 | |
| enthive/save – users should be able to archive/save | heir alerts | 3 | - 5 | | 5 | 1 | 316 | . | ļ | | |
| satup/subscribe to - users should be able to determ | ne what data they want to receive alerts for | 5 | 5 | | 5 | 2 | 388 | | | | |
| setup frequency - users should be able to set up ho | v often they want to receive elects | 5 | 5 | | 5 | 2 | 388 | | | 19 | |
| view - users should be able to choose through what | | - 5 | - 5 | | 5 | 2 | 388 | | | | |
| e-mail | | 5 | - 5 | | 5 | - 5 | 430 | | 1 | 17 | |
| pagers | | 1 | 1 | | 1 | 1 | 88 | l | | | |
| PDAs | | 1 | 1 | | 1 | 1 | 98 | | | | low user value |
| Instant messaging | | . 1 | 1 | | 1 | 1 | 86 | | | | |
| Fax | | 1 | 1 | | 1 | 1 | 86 | | | | |
| Voice mail | | 1 | 1 | | 1 | 1 | 88 | | | | |
| earch - users should be able to search investment, data | | - 5 | - 5 | | 5 | - 5 | 430 | . | 1 | B8 | |
| oriteria - users should be able to create their own oustomized search | critoria | Е | | | | | 430 | MH. | | 170 - | |
| create - users should be able to create their own ou | | 5 | 5 | + | 5 | 5 | 430 | l | ti | 86 | · |
| universe | | 5 | 5 | | 5 | 5 | 430 | l | i | 67. 68 | - |
| categories. | | | - | + | 5 | 5 | 430 | | i | 89 | |
| data elements | | 5 | 5 | | 5 | 5 | 430 | MH-I | · · · · · · · · · · · · · · · · · · · | 70 | 1 |
| presat parameters | | 5 | 5 | | 5 | | 430 | | | 57 | |
| oustam calculations | | | t | † | | | 0 | ! | † | 59 | |
| question format | | | | | | | 0 | l | 1 | 62 | - |
| | | | | | | | | l | † | 72, 64, | |
| save - users should be able to save their search or t | | 5_ | - 5 | | 5 | - 5 | 430 | | ļ! | 173 | |
| edit - users should be able to edit their search ofter | â | | - 5 | | - 5 | 5 | 430 | ļ | 1 | 72, 65 | |
| publish – users should be able to publish their searc | criteria to diher users within their firm | 5 | 3 | | 5 | 5 | 372 | | | | |
| alerts/notified ions - users should be able to assign | dets to search criteria | | | | | | | l | | | |
| Search criteria level alerts - users shou | ld be able to assign alerta to search criteria | 1 | | | 1 | | 144 | | | | |
| archive/sare - users sh | ould be able to archive's ave their alerts | 3 | - 6 | | 5 | 1 | 318 | | | | |
| | should be able to determine what data they | 1 | 3 | | 1 | 1 | 144 | | | | |
| set up frequency - user receive alerts | s should be able to set up how often they want to | , | 3 | | , | 4 | 144 | | | 19 | |
| view alerts - users shot want to receive alerts | id be able to choose through what media they | 1 | 3 | | 1 | - | 144 | | | | |
| emai | | | - 5 | + | | | 430 | | 1 | 17 | |
| pagers | | 1 | | † | 1 | | 88 | | · | + | · |
| PDAs | | | 1 | | 1 | | 88 | | | | low uservalue |
| Instant me | saning | 1 | - | 1 | 1 | - | 86 | t | † | + | |
| Fax | | - | - | | 1 | 1 | 86 | l | † | | · |
| Voice mail | | 1 | 1 | 1 | 1 | 1 | 86 | l | † | 1 | |
| search results - search results will display for searches | | <u>-</u> 5 | - | · | 5 | 5 | 430 | l | | + | 1 |
| view - users should be able to view search results | | 5 | - 5 | † | 5 | - 6 | 430 | MH | 1 | 74, 73 | |
| save - users should be able to save search results | | 5 | 5 | | 5 | 5 | 430 | | | 1 | 1 |
| publish - users should be able to publish search res | its to other users within their firm | 5 | 3 | 1 | 5 | 5 | 372 | l | † | | |
| renit/sort - users should be able to rank/sort search | | I <u>:</u> | | + | + | - | 430 | ! | + | 79 | |

| Investment Res | earch Subdomain | | | | | | | | | |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----|---|-----|-----|-----|----------|--------|----------------|
| | update - users should be able re-run searches once data has been updated so that results are updated | ed 5 | - 5 | | 5 | - 5 | 430 | МН | 1 78.7 | 5 |
| | customize layout - users should be able to create customized views of Morningstar investment data similar to what is available in Principle Research mode | | 1 | | | 5 | 430 | MH: | 1 174 | M |
| nvestment news and | | | | | В | - 0 | 430 | NI 7 | 11 | |
| iivestine lit news allt | view – users should be able to view investment news and commentary | - 5 | | | - 5 | - 5 | 430 | | T | |
| | M* mutual fund category overviews | - 5 | | + | 5 | 5 | 430 | ł | + | |
| | send to clients - users should be able to send news & commentary to clients | | + | | | | 0 | MH | 1 124 | |
| | M* summary sections | | 1 5 | | | | | 1 | 1.27 | |
| | send to dients - users should be able to send news & commentary to dients | | 1 | † | + | | 0 | N9-3 | 1 124 | |
| | M* commercary archive | 5 | - 6 | | 5 | - 5 | | 1 | | |
| | send to clients - users should be able to send nave & commentary to clients | | 1 | | | | 0 | MH | 1 124 | |
| | M* aditorial analysis tergeted to advisors | - 5 | 3 | | 1 | 3 | 288 | l | | |
| | send to dients - users should be ablet a send news & commentary to dients | | | | | | 0 | MH | 1 124 | |
| | M* naws (rause & naw for advisors about industry) | 5 | 5 | | 5 | 3 | 402 | | | |
| | send to clients - users should be able to send news & commentary to clients | | | | | | 0 | N9H | 1 124 | |
| | third party editorial analysis | | | | | | 0 | MH-3 | 1 127 | |
| | send to clients - users should be able to send news & commentary to clients | | | | | | 0 | MH | 1 124 | |
| | third party news | | | | | | 0 | MH | 1 126 | |
| | send to clients - users should be able to send nave & commentary to clients | | | | | | 0 | MH | 1 124 | |
| | alerta/notifications - users should be able to assign aferts to investment navs and commentary | | | | | | | . | 1 | |
| | News & commentary alerts | 5 | 3 | | 5 | 4 | 368 | L | | |
| | archive/save - users should be able to archive/save their alerts | 3 | 5 | | 5 | 1 | 316 | ! | | |
| | satup/subscribe to – users should be able to determine what data they want to receive alerts for | 5 | | - | | | 145 | _ | | |
| | setup frequency - users should be able to set up how often they want to receive alerts | 5 | | | | | 145 | | 1 19 | |
| | ylev - users should be able to choose through what media they want to receive alerts. | 5 | | | | | 145 | 1 | | |
| | e-mail | 5 | 5 | | 5 | 5 | 430 | l | 1 17 | |
| | pagers | 1 | 1 | | 1 | 1 | 88 | | | |
| | PDAs | 1 | 1 | | 1 | 1 | 86 | I | | low user value |
| | Instant messaging | 1 | 1 | | 1 | 1 | 86 | . | | |
| | Fax | 1 | 1 | | 1 | 1 | 88 | | | |
| | Volue mail | . 1 | 1 | | 1 | 1 | 88 | . | | |
| | print - users should be able to print investment news and commentary | | - 5 | | 5 | - 5 | 430 | L | | |
| competitive research | | | | | | | | l | | |
| | compare within same universe - users should be able to compare data elements of investments within the same universe. | 5 | - 5 | | 5 | 5 | 430 | мн | i 190 | |
| | | | | | T | | | I | | |
| | compare across universes - users should be able to compare common data elements of investment's across universes | 5 | 5 | | 5 | 5 | 430 | MH | 1 190 | |
| | graphs- users can generate single graphs conatining multiple investment to get competitive views as well. The following graphs should be available for Morningster investment data. | 5 | - 5 | | 5 | 5 | 430 | | | |
| | Growth of \$10K graph | 5 | - 5 | | 5 | - 5 | 430 | N/H | 1 184 | |
| | Generate single investment graphs - users should be able to generate graphs for one investment | 5 | 5 | | 5 | 5 | 430 | | | |
| | Generate multiple investment graphs - users should be able to graph more than one investment in a single graph | 5 | 5 | | 5 | 5 | 430 | | | |
| | Modify | 5 | - 5 | | 5 | 5 | 430 | 1 | | |
| | Magnity | 5 | 5 | | 5 | 5 | 430 | • | | |

| Investment Res | search Subdor | main | | | | | | | | | | | | | |
|------------------------|-----------------------------------------|---------------------------------------|----------------|-----------------|----------------------------------------------------|--------------|-----|--------------------------------------------------|--------------|--------------|---------------------|----------|-----------------------------------------|-----|----------------|
| | | | | | | | | | | | | | | | |
| | | Save | | | | - 5 | - 5 | | 5 | - 5 | 430 | l | | | |
| | | Retrieve | | | | - 5 | - 5 | | 5 | - 5 | 430 | | | | |
| | | Copy | | | | 5 | - 5 | | 5 | - 5 | 430 | | | | |
| | | print | | | | 5 | 5 | *************************************** | 5 | - 5 | 430 | | | | |
| | Total Annual R | | | | | 5 | - 5 | | 5 | - 5 | 430 | MH | 1 | 184 | |
| | | Generate single investments | manhs | | | 5 | 5 | | 5 | 5 | 430 | 1 | | | |
| | | Generate multiple investmer | | <u> </u> | | 5 | | | 5 | - 5 | 430 | i | † | · | |
| | *************************************** | Modfy | a Marie and | | | - 5 | - 4 | | | 5 | 430 | l | | + | |
| | | Sare | | | | 5 | 5 | | 5 | 5 | 430 | ! | - | - | |
| | | Ratriova | | | | | 5 | | <u></u> 5 | | 430 | | | | |
| | | | | | | | | | | | } | — | | | |
| | | Copy | | | | - 5 | - 5 | | - 5 | - 6 | 430 | | | | |
| | | print | | ļ | | - 5 | 5 | | 5 | - 5 | 430 | l | ÷ | | |
| | Risk/Roaward 8 | - | | | | 5 | - 5 | | 5 | - 5 | 430 | MH | ļ | 184 | |
| | | Generate single investment | | | | - 5 | 5 | - | - 5 | - 5 | 430 | ļ | · | | |
| | | Generate multiple investmer | t graphs | | | 5 | - 5 | | 5 | 5 | 430 | ļ | | | |
| | | Modify | | | | 5 | - 5 | ļ | - 5 | - 5 | 430 | ļ | | | |
| | | Save | | | | | - 5 | ļ | 5 | 5 | 430 | | | | |
| | | Ratriave | | | | 5 | - 5 | | 5 | 5 | 430 | | | | |
| | | Copy | | | | 5 | - 5 | | 5 | - 5 | 430 | . | | | |
| | | print | | | | 5 | - 5 | | 5 | - 5 | 430 | | | | |
| | Correlation Ma | drin: | | | | 5 | - 5 | | 5 | - 5 | 430 | N/I+ | 1 | 184 | |
| | | Generate single investments | | | | 5 | - 5 | | 5 | - 5 | 430 | | - | | |
| | | Generate multiple investmen | te | | | 5 | 5 | *************************************** | 5 | 5 | 430 | 1 | | | |
| | | Modify | | | | 5 | - 5 | | 5 | - 5 | 430 | | | | 1 |
| | | Save | | | | 5 | 5 | *************************************** | 5 | - 5 | 430 | | | | |
| | | Retrieve | | | | 5 | - 5 | | 5 | - 5 | 430 | l | <u> </u> | · | |
| | | Сору | | | | 5 | - 5 | † | 5 | 5 | 430 | l | *************************************** | · | |
| | | print | | <u> </u> | | | 5 | | 5 | - 5 | 430 | ! | <u> </u> | · | |
| | Pie Chart | P | | | | <u></u> | | + | <u></u> | 5 | 430 | l | 1 | 185 | |
| | Fre Care. | General o signilo investment | | | | - 5 | - 4 | _ | 5 | 5 | 430 | l | †* | 100 | |
| | | Generate single investments | | | | | 5 | + | 5 | 5 | 430 | ! | + | - | |
| | | Generate multiple investmer | 1131 | | | ************ | | | | | \$ ~~~~~~~~~ | · | | · | |
| | | Modify | | | | 5 | - 5 | + | 5 | - 5 | 430 | l – | - | - | |
| | | Save | | | | 5 | - 5 | | - 5 | - 5 | 430 | | | | |
| | | Ratriave | | ļ | | 5 | - 5 | | 5 | - 5 | 430 | ļ | ļ | | |
| | | Copy | | | | 5 | - 5 | - | 5 | - 5 | 430 | ļ | · | | |
| | | print | | <u> </u> | | - 5 | - 5 | | - 5 | - 5 | 430 | | <u> </u> | .L | |
| Advisor-to-institution | n information shar | ing | | | | | | | | | | | | | |
| | | | lhe institutio | na who produce | dferings within MorningstarAdvisor.com | | | | | | 0 | | | | |
| | institutional inf | ormation (VTS -institutional m | ini-sites) | | | 5 | 3 | | 5 | 1 | 318 | 1 | | | |
| | | be abla to connect to institute | | (| | | | T | | 1 | 0 | l | 1 | | |
| | alerte/notifications | | | | | | | | | | | l | 1 | | |
| | | hanges - users could be able | totrack 3rd | party sites and | receive not floations when those changes occur | 3 | 3 | | 3 | 1 | 230 | l | † | T | high uservalue |
| | | archive/save - users should | | · | | 3 | - 5 | | 5 | 1 | 316 | 1 | | 1 | 1 |
| | | | | | hat 3rd party sties they want to receive alerts on | 3 | - | | | | 87 | | | | |
| | | 4 | | | en they want to receive alerts | 3 | | + | | | 87 | l | 1 | 19 | |
| | | | | | | 3 | | | | | 268 | l . | i | 1.2 | |
| | | · · · · · · · · · · · · · · · · · · · | io encose th | roughwhat mac | Sathay want to receive alerts | | 3 | _ | 3 | 3 | | ļ | ļ | | |
| | | e-mai | | | | - 5 | - 5 | - | - 5 | - 5 | 430 | ļ | ļ! | 17 | |
| | | pagers | | | | 1 | 1 | | 11 | 1 | 88 | ļ | | | |
| | | PDAs | | | | 1 | 1 | | 1 | 1 | 86 | | | | low uservalue |



| vestillent Ke | esearch Subdo | Jiliaili | | | | | | | | | | | | |
|------------------|---------------|------------------------------------------------------|------------------------------------------------------------|------------------------------------------------|----------|-----|--------------------------------------------------|--------------|-----|----------|----------|--------------|-------|--------------------------------------|
| | | Instant mosco | olog | | - | | | 4 | | 88 | | | | 1 |
| | | Instant messa Fax | 919 | | | + | | | 1 | 88 | 1 | | | |
| | | Volue mail | | | | - | | | - | 98 | | + | + | <u> </u> |
| | | i | bl - 4 b | 7-4 | 3 | 2 | | | 3 | 257 | ! | | | |
| | | rom 3rd parties - users could be | e able to receive messages m | om are party sees | - 3 | - 2 | | | - 3 | 25/ | ł | <u> </u> | | |
| a-advisor inform | • | | | | | | | | | | | | | |
| | | in different firms should be able | | | | | ļ | | ļ | 0 | | | | |
| | butatin boa | rds - advisors in different firms: | should be able to user buildin | boards to communicate with each other | 5 | 1 | <u> </u> | 3 | | 288 | MH | 1 | 88,89 | low uservalue |
| | | alertainotifications users of they are monitoring | can assign alerts so that they | are not fied to changes in build in boards | | | | | | | | 1 | | |
| | | butetin board | postings | | 3 | 3 | | 3 | 1 | 230 | 1 | | | |
| | | | archivelsave - users should | be able to archive save their elets | 3 | - 5 | | 5 | 1 | 316 | 1 | | | |
| | | | setup/suscribe to - users shi boards they want to track | ould be able to determine which bulletin | 3 | | | | | 87 | | | | |
| | | | set up frequency – users shi receive alorts | ould be able to setup how often they want to | 3 | | | | | 87 | | | 19 | |
| | | | view - users should be able receive elerts. | to chose through what media they want to | 3 | | | | | 87 | | | | |
| | | | e-mail | | 5 | - 5 | | 5 | - 5 | 430 | l | 1 | 17 | |
| | | | pagers | | 1 | 1 | | 1 | 1 | 88 | | | | |
| | | | PDAs | | 1 | - 1 | | 1 | 1 | 88 | | | | low uservalue |
| | | | Instant massag | ing | 1 | 1 | | 1 | 1 | 88 | 1 | | | |
| | | | Fax | | 1 | 1 | | 1 | 1 | 86 | l | | | |
| | | | Voice mail | | 1 | 1 | | 1 | 1 | 86 | | | | |
| | chat - advis | ors should be able to use that a | roomsto communicate | | | | | | | a | l | 1 | | |
| | Instant mes | sadwal the webould incorpor | rate instant messacino as a fe | ature so that groups can communicate with | 1 | 1 | | 1 | 4 | 128 | Ī | | | not necessary business value, user v |
| | each other | | | | - 5 | - 6 | | 4 | 4 | 402 | 1 | | | |
| | | | | | | | | | | 0 | | | | |
| | | with M* - advisors could us | e instant message to commun | nicate with Morningstar | 1 | 1 | | 5 | 1 | 142 | 1 | † | + | |
| | | feedback | | | | | | - | _ | 0 | l | · | | |
| | | helo | † | | | | | | | 0 | 1 | † | | |
| | | | at) - advisors could use instar | if message to communicate with other advisors | 1 | 1 | | 5 | 4 | 184 | l | † | 1 | |
| | | | d use instant message to com | | | 1 | | | - | 142 | | | | |
| | host | Was created - advisory book | a are male interestable to com | municipal mentings charge | | | | | | 0 | | | | + |
| | | s . Morningster and dibort adult | on slige eather directs could be | i have more direct access to their advisors | | | | | | <u>_</u> | | | 134 | |
| | | | | | \vdash | | _ | _ | | 0 | ł | ļ | 104 | - |
| | γ | be able to submit the following in | ······ | iscr.com | 9 | - 1 | | 3 | 3 | | l | + | | - |
| | | nt (could happen on build in boo | | | | | | | | 200 | ! | · | | - |
| | | visors could provide their own p | | 9 | | | | 3 | | 172 | | | | |
| | | is) (could be accomplished thro | | | 3 | 2 | | 4 | 3 | 243 | ! | | - | |
| | | able to submit the following info | | ar com | | | | | | 00 | | | | · |
| | | nt (could happen on bullstin box | | | | | | | | 0 | ļ | ļ | | |
| | | visors could provide their own p | | § | | | ļ | | | 00 | ļ | | | |
| | mod recorder | (could be accomplished through | to be disable. It is nearly | | | | 1 | 1 | | | | | | |



| | | | | | | | | 77777 | 300000 | 300000 | 6600000 | | | Disc | Disc | | |
|-------------------------------------------|-----------------------------|-------------------------------|----------------|-------------------|----------|------------|---------------------------------|-------|--------|--------|---------|-----|----------|-------|-------|--------|-------|
| | Action | Subobject | Action | Subobject | Action | Subobject | Action | Bus | | | | Mkt | | Prior | Phase | Disc # | Notes |
| | | | | | | | | 29 | 29 | 14 | 14 | 14 | 100 | | | | |
| vices for hire - a | dvisorsa | nd other p | rofession | nal could p | lace ads | for servic | es they offer to other advisors | | | | | | | | | | |
| | | | | | | | | | | | | | | l | | | |
| | vice | | T | T | T | T | | | | | | | | | | | |
| | | market place of | | | † | † | | | | | | ~~~ | ~~~~~~~~ | | ÷ | | |
| | | COLUMN TANKS TO SERVE AND THE | MY FOR REQUIRE | action – want act | 1 | | | - 2 | 3 1 | | a 1 | 2 8 | 21.5 | | | | |
| | print | market aces | arvice aggreg | ation - wart ad | | | | 2 | -3 | | - a | -2 | 21.5 | - | | | |
| listings - firms a | print and instit | | | I | | | | 2 | 3 | | 3 | 2 | 215 | | | | |
| listings - firms a | print and instit | | | I | | | | 2 | 3 | | 3 | 2 | 21.5 | | | | |
| i listings - firms a | print and instit | utionscou | | I | | | | 2 | 3 | | 3 | 3 | 21.5 | | | | |
|) listings - firms a | print and instit view | | | I | | | | 2 | 3 | | 3 | 3 | | | | | |
| o listings - firms a ferrals - Morning | view print | utions cou | ld place i | Help Want | ed ads | | | 2 | 3 | | 3 | 3 | | | | | |

| | Action | Subobject | Action | Subobject | Action | Subobject | Action | Bus 29 | User 29 | Tech 14 | Brand 14 | Mkt 14 | Total 100 | Disc Prior | Disc Phase | Disc # | Notes |
|-------------------|-------------|-------------------|----------------|--------------------|---------------|------------------|---------------------------|-----------|------------|------------|-------------|-----------|--------------|---------------|---------------|--------|----------|
| tice manageme | nt e duca | tion | | | | | | | | | | | | | | | |
| | edunat elle | arnffrain - users | should be at | ele to participate | in courses th | at helothem im | prove their business | | | 0 | | | 0 | | | | |
| | | M* investment | | | | | | - 5 | - 5 | | - 5 | - 5 | 430 | мн | I | 113 | |
| | | educational an | licies | | | | | - 5 | δ | | - 5 | 3 | 402 | | | | |
| | | | view | | | | | | | | | | 0 | | | | |
| | | | | technical revie | WS | | | | | | | | 0 | MH | 1 | 145 | |
| | | | | best practices | | | | | | | | | 0 | МН | I | 146 | |
| | | | | compliance | | | | | | | | | 0 | MH | 1 | 947 | |
| | | links to profess | sional sibes (| how) | ļ | | | | | <u> </u> | | | 0 | мн | 1 | 148 | |
| | | calendar of ex- | ents | | | | | 3 | 2 | | 3 | 3 | 229 | _ | | | |
| tegrated event ho | sting | | | | | | | | | | | | | | | | |
| | | - users should b | e able to pe | ticipate in online | events with | inclustry though | l leaders and specialists | | | 00400 | | | 0 | | | | |
| | | | | guesta, enhance: | | | | | | - | | | 0 | MH | I | 94 | |
| istance learning | | | | | | | | | | | | | | | | | |
| | educatelle | arnftrain | | | | | | | | | | | 0 | 1 | | | <u> </u> |
| | | - | | înteractive, căsk | Ziearn) | | | 3 | 3 | | 3 | 2 | 244 | inth | 1 | 143 | |
| | | part#igation op | urses | | | | | 3 | 3 | 6 | 3 | 2 | 244 | | | | |

The Recommend domain includes features that enable advisors to

- Analyze client and investment information.
- Create powerful, informed, and timely recommendations
- Present these recommendations in ways that suit the specific needs of their clients

Three subdomains make up the Recommend domain:

Opportunity qualification

- Information and tools that allow advisors to evaluate a client's current financial situation
- Information and tools that allow advisors to prepare for the recommendation process by performing asset allocation and portfolio creation

Recommendation generation

• Information and tools that allow advisors to research and select investment offerings appropriate for their client's specific situation

Recommendation presentation

 Information and tools that allow advisors to communicate their proposed investment strategy to their clients, in a way that enables effective, informed decision making.

Opportunity qualification features

State assessment

Advisors would able to assess their clients in two ways:

- Assess client's risk tolerance
- Assess client's financial goals

Asset allocation

Advisors would be able to create a financial plan that reflects their client's risk tolerance and goals, including the ability to create customized asset allocations.

Portfolio creation

After advisor have presented recommendations to the client and have received client sign-off, they would be able to create a real portfolio for their client. Advisors would be able to

- Create multiple client portfolios
- Create scheduled and unscheduled portfolios
- Allocate holdings to portfolios by
- Percentage
- Market value
- Shares
- For scheduled portfolios, create systematic holding schedules

Recommendation generation features

Recommendation allows advisors to research and select investment offerings appropriate for their client's specific situation.

Client research

Some clients may already have investments that are not under their advisor's control. Others have complicated tax considerations or may be facing a life change such as a new child or divorce. Client research is really investment research that is targeted to a client's unique situation. The topics that may be researched, however, may lie outside of the context of "investment research," for example, tax information.

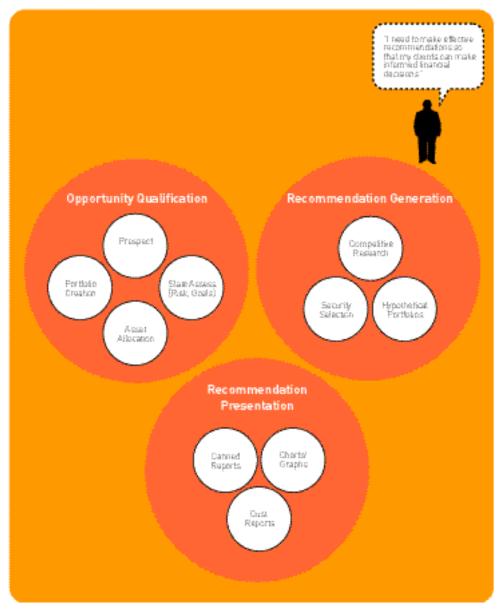
Security selection

Security selection is the process of choosing investment offerings appropriate for their client's specific situation.

Hypothetical portfolios

Part of the process of generating recommendations is seeing how new investment offerings would work with the client's existing holdings from a historical performance, risk, and diversification standpoint. Hypothetical portfolios would offer a quick way of understanding how new and existing investments would mix. This exercise also helps advisors set client expectations about how a portfolio should perform.







Recommendation presentation features

Canned reports

A set of unmodifiable informational layout views would be available.

Customized reports

A set of modifiable informational layout views would be available.

Charts/Graphs

Visual representations of data, such as graphs and tables, are useful, especially if they can be exported to other programs.

Exporting information (reference Support domain)

In addition to Principia reports, advisors use several tools to present information to clients, including Excel and PowerPoint. The ability to export data from the site to these applications would be valuable to advisors.

Feature opportunities

The following feature could be added to MorningstarAdvisor.com in the future:

Prospecting

The ability for advisors to track the status of clients they are trying to attract and the ability to track communications with those "prospective" clients are valuable features that advisors currently use other tools to accomplish, including ACT. and Goldmine.



The following charts provide additional detail on the site features. Each line item has been evaluated from the different points of view of the Morningstar business, the user the brand, and the marketplace (competitive value).

Each feature has been ranked on a scale from 5 to 1

- \bullet A rating of 5 indicates that the feature s a must have
- A rating of 1 indicates that the feature s a nice to have

The numbers 29 and 14 beneath the column headings indicate the relative weighting of each point of view.

| Opportunity Q | ualific | ation Su | bdom | ain | | | | | | | | | | | | | |
|---------------------|-----------------------------------------|-----------------------------------------|---------------|--------------------|-----------------|----------------------------------|--------------------------------------------------------|-----------|------------|-----------------------------------------|-------------|-----------|--------------|------------------|---------------|-----------------------|---------------------------------------|
| | Action | Subobject | Action | Subobject | Action | Subobject | Action | Bus 29 | User 29 | Tech | Brand 14 | Mkt 14 | Total 100 | Disc Priority | Disc Phase | Disc# | Notes |
| Prospect state asse | sement | | | | | | | -27 | | - 1 | 14 | 174 | 100 | 1 | | | |
| Tropectorate asse | | dvisors should b | a ablata sa | form risk opnose | monte and a | on concernat | of or all orde | | , | | | | 430 | ł | - | | |
| | min.perate - a | - | | ould be able to | | | SIG COMES | - 5 | - 5 | | | | 430 | MH | | 155 | |
| | *************************************** | 1100.0000000000000000000000000000000000 | γ | question naine | | 7 | 1 | | - 5 | | 5 | 7 | 430 | MH | | 156 | |
| | | | output risk | | | | | - 6 | | | 5 | | 430 | MH | i | 157 | + |
| | | nnais - advisor | | ablato determin | e of ent's fine | andal anals | | 6 | 6 | | 6 | | 430 | MH: | i | 158 | |
| | | grand desired | | guestionneire | | i game | | 5 | | | 5 | | 430 | MH | | 159 | |
| | | | output gos | | | + | | 15 | | | 15 | | 430 | MH | Ti | 160 | |
| sset allocation | | | 1 - 1 - 1 - 1 | | | | · | | | | | | 700 | İ | · | | |
| ssetattocation | create - a | dvisors, should be | able to cre | aho asset allocati | on plan for o | larts | | 5 | 6 | | 8 | 6 | 430 | MH∃ | | 162, 163, 175, 176 | final requirements for asset allocati |
| ortfolio creation | | | | | | | | | | | | | | | | | |
| | create por | tfolios - users sh | ould be able | ito create portfo | ios (schedul | ed, unscheduled | , hypothetical) | 5 | 6 | | 6 | 6 | 430 | MB-3 | | 187, 188, 189 | |
| | | | | be able to organ | | | | 5 | - 6 | *************************************** | 5 | - 5 | 430 | 1 | | | |
| | *************************************** | - | | | | | portfoliosfor one client | 5 | - 5 | | 5 | - 5 | 430 | 1 | | <u> </u> | |
| | | scheduled por systematic inv | | and hypothetical | advisors shi | ould be able to c | reate scheduled portfoliowith | 5 | 5 | | 5 | - 5 | 430 | | | | |
| | | | add | | | | | 8 | - 6 | | 8 | - 5 | 430 | | | | |
| | | | | holdings - usa | | | ings to portalios | - 6 | - 6 | | 8 | - 5 | 430 | l | | 191 | |
| | | | | | allocate - u | sers should be a | able to allocate holding to portfolios by | 6 | - 6 | | 8 | - 6 | 430 | | | | |
| | | | | | | by % | | - 5 | - 5 | | - 5 | - 5 | 430 | . | | | |
| | | | | | | by markst valu | 2 | - 5 | - 5 | | 5 | - 5 | 430 | | | | |
| | | | | | | by shares | | 5 | 5 | | 5 | 5 | 430 | | | | |
| | | | | | | by equal % | | - 5 | - 5 | | - 5 | - 5 | 430 | I | | | |
| | | | | | | by not equal % | | - 6 | - 5 | | 8 | 5 | 430 | | | | |
| | | | | | assign | | | 5 | - 6 | | 5 | - 5 | 430 | | | | |
| | | | | | | holding schedu schedules to p | da - users should be abla to assign hiding offolios | 5 | 6 | | 5 | - 6 | 430 | | | | |
| | | | | | | ļ | schedule lump sum investments | - 5 | - 5 | | - 5 | - 5 | 430 | ļ | | | |
| | | | | | | | schedule systematic investments | 5 | 5 | | 5 | - 5 | 430 | | | | |
| | | | | | | | edt | - 5 | - 5 | | - 5 | - 5 | 430 | | | | |
| | | | | 1 | | | overwide | | - 5 | ļ | 8 | 5 | 430 | | | | |
| | | | | | | alets - users s | hould be able to assign alerts to holdings | 6 | - 5 | | 5 | 5 | 430 | | | | |
| | | | ļ | | edit | <u> </u> | | - 6 | - 6 | | 5 | - 6 | 430 | | | | |
| | | | | | | in portfolias | ars should be able to adit holding allocations | 5 | - 5 | | 5 | 5 | 430 | | | | |
| | | | ļ | | | | le to delete holdings from partfolice | - 5 | - 5 | | 5 | - 5 | 430 | ļ | | | |
| | | | | | + | | eto mave holdings from one portfolioto and her | <u></u> | 5 | | <u> </u> | | 430 | | | | |
| | | | | - | | | le to general e reports on portfolio holdings | - 6 | - 5 | ļ | 8 | - 5 | 430 | - | | - | - |
| | | | | | | transAction rep | | 6 | - 5 | | 6 | - 5 | 430 | ļ | | | |
| | | | ļ | | | calendarfigure | | 6 | - 6 | | 5 | - 6 | 430 | ļ | | | |
| | | | | | • | , | to track holdings within portfolios | - 5 | - 5 | | 5 | - 5 | 430 | | | | |
| | | | | | • | by shares | | 5 | - 5 | | 5 | - 5 | 430 | | | | |
| | | | | | | by dollars | | - 5 | - 5 | | 5 | - 5 | 480 | 1 | | | |

| v Qualifica | ation Subo | doma | in | | | | | | | | | | | | | |
|-----------------------------------------|----------------------|--------------|------------------|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|---------|--------------|--------------------------------------------------|-----------------------------------------|-----|------|--------------|--------------|--------------|--------------|
| | | | | | | | | | | | | | | | | |
| | m | rodfy - use | are should be at | ale to modify | aspects of portf | dios | 5 | | | | | 146 | 1 | | | |
| | | | holdings | 1 | | | - 8 | | | | | 146 | 1 | | 192 | |
| | | | portfolio | | | | 5 | | | *************************************** | | 145 | 1 | | | |
| *************************************** | | le let e | · | | † | | | | | | | 145 | 1 | | † | † |
| *************************************** | | | la aleliana | a should be | Ablada dalala b | ddingsfrom perfidios | | | | | | 145 | 1 | | 193 | |
| *************************************** | + | | Ţ | | | | | | | | | 146 | † | | + | |
| | | | | | ole to delete ent | re port dios | | <u> </u> | | ļ | | ~~~~ | ! | | | |
| | | | should be able | | | | | ļ | | | | 145 | - | | | |
| | | | should be able t | | | | 5 | | | | | 146 | ! | | | |
| | - | | | | folio information | | 5 | | | | | 146 | | | ļ | ļ |
| | | | | | duled partfolio ir | | - 5 | | | | | 145 | I | | <u> </u> | <u> </u> |
| | | | | | | s should be abe to create unscheduled portfolo | 9 5 | | | | | 145 | N0-4 | 1 | 188, 189 | <u> </u> |
| | | esign bend | hmarks - users | should be at | ble to assign ber | ohmarks to portfolios | 5 | | | | | 145 | 1 | | | |
| | Qu. | dd | | | | | - 5 | | | | | 145 | | | | |
| | | | holdings - user | s should be | able to add hold | ngs to port dios | - 5 | | T | | | 145 | I | 1 | | |
| | | | | allocate - u | sers should be a | ble to allocate holding to portfolios by | 5 | | 1 | | | 146 | 1 | | | |
| | | | | | by % | | | | | 9 | | 430 | 1 | | | |
| *************************************** | + | | | | ÷ | | - | - 4 | | - | - | | | | + | |
| *************************************** | | | | | by market value | 2 | | | _ | | | 430 | ! | ļ | + | ÷ |
| *************************************** | | | | | by shares | | | - 5 | | <u>-</u> | | 430 | ! | | | |
| | | | | | by equal % | | <u></u> | - 5 | | <u></u> | 5 | 430 | | | | |
| | | | | | by not equal % | | - 5 | - 6 | ļ | - 5 | - 6 | 480 | I | | | |
| | | | | edt | | | 8 | | ļ | | | 145 | | | | |
| | | | | | allocation - use in portflice | rs should be able to dit holding allocations | 8 | | | | | 146 | | | | |
| *************************************** | | | | delete - use | are should be ab | le to delete holdings from patfolice | - 5 | - 5 | 1 | 5 | 4 | 430 | 1 | | † | † |
| *************************************** | <u> </u> | | <u> </u> | | | ato move holdings form one portfolioto and he | - | - 5 | | 5 | - 4 | 430 | t | | † | † |
| | · | | | | | e to general e reports on portfolio holdings | | | | | | 430 | † | | † | † |
| | | | | | | | | | | · | | | 1 | | | |
| | | | | se to modify | aspects of portf | 3109 | - 0 | | | | | 145 | ! | | 107 | |
| | | | holdings | | | | 5 | ļ | | | | 145 | 1 | | 1.41 | |
| | | | portfolio | | ļ | | 5 | | | | | 146 | ļ | | ļ | ļ |
| | d | elet e | ļ | | L | <u> </u> | - 5 | | - | | | 145 | ļ | | | ļ |
| | | | holdings - user | s should be | ableto delete h | dingsfrom portfolios | 55 | | | ļ | | 145 | | | 493 | ļ |
| | | | portfolio - user | should be at | ble to delete ent | re port dios | | L | | | | 145 | l | | | |
| | 96 | ave | | | | | - 5 | | | | | 145 | 1 | | | |
| | vi | or | | | | | - 5 | | T | | | 145 | 1 | | | |
| | | raph | | | | | - 6 | | T | | | 145 | 1 | 1 | | |
| apply | | | | | † | | - | | | † | | 0 | 1 | | † | † |
| | tax schames - use | ars should ! | ha ablata asol | utas Informa | tion to elient's e | ntfolios | _ | | | | | 0 | 1 | | | |
| ala lak | i | | | 1 100 110 50 1110 | The same of the sa | ar to to the | | | _ | | | 145 | 1 | | ····· | |
| | ers should be able t | | | dillatia takan | attende de la companya de la company | | | | | | | | - | | | - |
| | enload - users shoul | | | | | | | | | | | 145 | ! | | | |
| | | | | | | recommendation: recommendation presentations | 9 5 | | ļ | | | 146 | - | | | |
| | oad - users should b | | | | nation from dhe | r programs | 5 | | | | | 145 | | | | ļ |
| name/rena | ame - users should b | be able giv | a names to port | tfolios | <u> </u> | | - 5 | | | | | 145 | I | | | 1 |
| | rs should be able to | | | | | | - | | | | | 145 | | | | |



| Recommendati | on Ger | neration | Subd | omain | | | | | | | | | | | | | |
|----------------------------------------------------|-----------|-------------------------------|--------------|-------------------|-----------|-------------|--------------------------------------------------|-----------|------------|------------|-------------|-----------|--------------|------------------|---------------|--------|-------|
| | Action | Subobject | Action | Subobject | Action | Subobject | Action | Bus 29 | User 29 | Tech 14 | Brand 14 | Mkt 14 | Total 100 | Disc Priority | Disc Phase | Disc # | Notes |
| Client research - use | rsshoul | ld be able t | o perfor | m researc | h on inve | estments s | pecific to their customers | | | | | | | | | | |
| Security selection - u for their clients, incli | isers sh | | le to use | several to | | | lect securities that are right folio creation | | | | | | | | | | |
| Hypothetical portfoli asset mix for their cl | os - use | rch: Investment rsshould b | | | pothetic | al portfoli | os to strategize on the best | | | | | | | 1 | I | I | |
| | see Recom | mend Opportu | nty Qualfice | tion: Portfolio e | eation | | | | | | | | | I | I | | |

| | Action | Subobject | Action | Subobject | Action | Subobject | Action | Bus 29 | User 29 | Tech 14 | Brand 14 | Mkt 14 | Total 100 | Disc Prior | Disc Phase | Disc # | Notes |
|-----------|------------|-----------------|---------------|--------------------------------------|----------------|-------------------|--------------------------------|-----------|------------|-----------------------------------------|-------------|-----------|--------------|------------|---------------|--------|----------|
| reports - | userscan | use fund de | tail viev | s and port | folio vie | ws as repo | : rts to communicate with t | | | | | , | 100 | | | | |
| | report | | | | | | ı | | | | | | | | | T | |
| | T WILL THE | | .i | | | | | | *** | | | | | | | | |
| | | allocation view | inepart - use | are should be abl | e to display t | he allocation vie | er as it exists in Principla | - 6 | - 6 | | 6 | 6 | 430 | мн | 1 | 225 | |
| | | | | -users should b | | | | | 6 | *************************************** | 6 | 6 | 430 | | | | <u> </u> |
| | | | | layout | | | 1 | | 6 | | 5 | 6 | 430 | | | | 1 |
| | | | | 1 | add | - | | 5 | 6 | | 5 | 6 | 480 | 1 | | | |
| | | | | | | dat a odumns | | - 6 | - 6 | | - 6 | - 6 | 430 | | | | |
| | | | | | remove | | | 5 | - 5 | | - 6 | - 6 | 430 | | | | |
| | | | | | | data columns | | | - 6 | | 5 | - 6 | 480 | | | | |
| | | | | | nanWsort. | | | | 6 | | | | 430 | | | | |
| | | | | | sav e | | İ | - 5 | - 6 | | . 5 | - 6 | 480 | | | | |
| | | | Vide -with | . | Haw, Users I | mound be able to | sea the following information | - 5 | - 6 | | - 5 | - 6 | 430 | | | | |
| | | | | dolarvalue | | | | | | | <u> </u> | | 430 | | | | |
| | | | | # of shares % allocations | | + | | - D | - 5 | | | - 5 | 430 430 | | | + | |
| | | | | detailedfunds | | + | | | | | | ····· | 430 | | | + | + |
| | | | | subasset class | - | + | | - 6 | - 6 | | | - 6 | 430 | MH | <u> </u> | 162 | |
| | | | graph - us | | | formation from a | within the allocation view | - 5 | - 6 | | 5 | - 6 | 430 | | · | | |
| | | | - 1 | holdings (see) | noldinos) | | 1 | 6 | 5 | *************************************** | 6 | 5 | 430 | | | | |
| | | snapshot - use | ins should be | holdings (see) able to display ! | he snapsho | iview as toxists | in Principia | - 6 | - 5 | | - 6 | - 5 | 430 | MH | I | 226 | |
| | | | viae | | | | | 6 | | | 6 | | 480 | | | | |
| | | | | benchmark op | mparison | | | - 6 | - 6 | | - 6 | - 6 | 430 | | | 1 | |
| | | | | composition | 1 | | | - 6 | - 5 | | - 6 | - 5 | 430 | | | - | |
| | | | | style and fund | | | | 5 | 6 | | 5 | 6 | 480 | | | | |
| | | | | stock olassifica | | | | | - 6 | | - 5 | . 6 | 430 | | | | |
| | | | | fixed-income s | tyla | | | 5 | . 6 | | 5 | . 6 | 430 | 1 | | | |

| ecommenda | tion Presenta | tion Sul | bdomair | | | | | | | | | | | | | |
|------------------|---------------------------------------------------|----------------------|---------------------------------------|-----------------------|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-------------|--------------------------------------------------|-----------|--------|------------|----------|----------------------------------------------|-----|--------------|
| | | IMICA. | | _ | | | | | | | | | | | | |
| | | | layout. | | | | | - 6 | | - 5 | - 6 | 430 | | | | |
| | | | | add | | | 5 | 6 | | - 5 | 6 | 430 | 1 | | | |
| | | | | | adumns | | - 5 | - 6 | | - 6 | - 6 | 430 | | | I | |
| | | | | delete | | | | - 5 | | 5 | 6 | 430 | | | | |
| | | | | | cdumns | | 6 | 5 | | - 6 | | 430 | | ļ | | |
| | | | | ranWsort | | | | <u> </u> | | <u>\$</u> | | 430 | | | | |
| | | oranto - usos | ora should ha also | save of a graph in | formation form | within the database view | | 5 | | - 0 | - 2 | 430 430 | | | + | |
| | | view | a a ancide de ale | T Graphin | | William Committee Committe | - 6 | - 6 | 1 | 6 | - 6 | 430 | | | | |
| | | 2100 | common cross | umb onsa info | nom at lon | | | 1 | ++ | | | 430 | 1 | | _ | |
| | | | Committee of the | sav e | | | - 6 | 1 5 | | 6 | - 5 | 430 | | | | |
| | alerta (see a | lerts) | | | | | - 6 | 7 | 1 | | | 430 | | | | |
| | | generate | | | | | - 6 | - 5 | | - 6 | - 6 | 430 | | | | |
| | | | alerts report | | | | - 6 | - 5 | | 6 | - 6 | 430 | | | | |
| | | print | | | | | | . 6 | | - 5 | - 6 | 430 | | | | 1 |
| | | viae | | | | | 5 | | | 5 | 6 | 430 | | | | |
| | stook overla | . | | | ļ | | | - 6 | | 5 | - 6 | 430 | MH | ļ! | 228 | |
| | | customize | - | · | | | - 6 | 5 | - | 5 | 5 | 430 | | | + | |
| | | _ | viow | | | | | | | <u>-</u> | | 430 430 | - | | - | |
| | | _ | stock rank display | | | | | 6 | | | 6 | 430 | - | | | |
| | | vlas | Carefore) | | 1 | | | + | | | ·····ž | 430 | 1 | | + | |
| | | | underlying sto | ik haldinas n | anked by % not | asset s | - 5 | 5 | 1 | 5 | - 5 | 430 | | · | + | |
| | | show | | | and the same of the | | - 5 | 6 | | - 6 | 6 | 430 | | · | + | |
| | | | lavel at diversit | loation | | | 6 | 5 | | 6 | 5 | 430 | 1 | | | |
| | scheduled p | atfolios | | 1 | | | | 1 | | | | | | 1 | | |
| | | report - use | ers should be eb | | e reports on po | tfolio holdings | 6 | 5 | | 6 | 5 | 430 | | | | |
| | | | transaction rep | | I | | - 5 | - 6 | | - 6 | - 6 | 430 | | | I | |
| | | | calendar figure | | | | | | | 5 | 6 | 430 | | | | |
| | | | scheduled pat | folioviewre | part | | - 6 | | | - 6 | | 480 | | | | |
| | | | | | | | | <u> </u> | | | | | - | | - | |
| | print - users should be at | lete print port | folio information | | <u> </u> | | | 5 | | 5 | 5 | 430 | . | | | <u> </u> |
| tomized reports | -an undetermine | dnumber | ofcustom | izable re | portssho | uld be available | | | | | | | | | | |
| | mutidmens | anai reports | | ļ | Ļ | | | | | | | <u></u> | | | 221 | |
| | Principia ga | ss report | | <u></u> | | | | | | | | G- | | <u> III </u> | 223 | I |
| rts/graphs - use | ers can also genera graph portfolios - usars s | ate charts | and graph | s en inve | estments | and portfolios | | | | | | | | | | |
| | | | o show graphica | livies of port | folia informatio | <u>n</u> | - 6 | - 5 | | - 6 | - 5 | 430 | | | | |
| | Grawth of 3 | | inala lavada | - cranhe | + | | 6 | 5 | | 6 | 5 | 430 | MH | <u> </u> | 184 | |
| | | | single investment nutiple investme | | | - | | | | | | 430 430 | | - | + | |
| | | Modify | Tarpie and essenting | in graphics | · | <u> </u> | | - 6 | | - 6 | 6 | 430 | | | + | |
| | | Magnity | 1 | | ļ | 1 | - 6 | 1 6 | | 5 | 6 | 480 | | † | + | 1 |
| | *************************************** | Save | · | † | † | | | 1 5 | | 5 | 5 | 430 | | | + | |
| | | Retrieve | 1 | † | † | | - 6 | - 5 | | - 6 | - 5 | 430 | 1 | 1 | † | |
| | | Copy | | T | | | - 5 | - 5 | | - 5 | - 5 | 430 | | | T | |
| | | print | | | | | | - 6 | | - 5 | - 6 | 430 | | | | |
| | Total Annua | Rist graph | | | | | | - 6 | | - 5 | - 6 | 430 | MH | I | 184 | |
| | | | single investment | | | | 5 | - 6 | | 5 | - 6 | 430 | | | | |
| | | | nutiple investme | nt graphs | ļ | | | - 5 | | - 5 | - 5 | 430 | | | | |
| | | Modfy | | | ļ | | 5 | - 5 | | 5 | - 6 | 430 | | | | |
| | | Save | | | | | 6 | 5 | | - 6 | . 5 | 430 | | | | |
| | | Ratriava | | ļ | | | | | | | - 5 | 430 | | ļ | + | |
| | | Copy | | ļ | · | | | 5 | _ | 5 | - 6 | 430 | | ļ | + | |
| | CirloDourse | print Contraction | | | + | | | 6 | | D | - 6 | 430 430 | MH | - | 184 | |
| | RiskRavan | | ingle investment | aranha | | | | - 6 | - | 6 | 6 | 430 | WE. | ľ | 104 | |
| | | | | | - | | | | | | 5 | 480 | 1 | | - | |
| | | Independent of a | THE PROPERTY OF THE | | | | E-1 | | | | | | | | | |
| | | Modfy | nutiple investme | ra grapna | | | - 6 | 5 | | 6 | | 430 | | · | + | |



| commendat | on Presentat | ion Subdom | ain | | | | | | | | | | | | |
|-----------|---------------|---------------------------|------------------|---------------------|------------------|-----|--------------------------------------------------|-------|-----|---------|------------|----|--------------|-----|---|
| | | | | | | | | | | | | | | | |
| | | Retrieve | | - | | - 6 | 6 | 1 | - 6 | - 6 | 430 | | | | |
| | | Copy | | | | | - 6 | | 5 | - 6 | 430 | | | | |
| | | print | | | | | - 6 | | 5 | - 6 | 480 | | | | |
| | Correlation N | latric . | | † | | - 5 | 5 | | - 6 | 5 | 430 | MH | 1 | 184 | |
| | | Generate single inves | tm ents | † | | - 6 | - 5 | | - 6 | - 6 | 430 | | | † | |
| | | Generate multiple inve | | † | | - 6 | - 5 | | - 6 | - 5 | 430 | | | 1 | |
| | | Modify | | | | - 5 | 6 | 1 | - 5 | - 6 | 480 | | | 1 | |
| | | Save | | | | - 5 | 6 | 1 | 5 | - 6 | 430 | 1 | | | |
| | | Ratrieve | | + | | | + | + | 5 | | 430 | | | + | |
| | | Copy | | + | | | - 6 | + - 1 | - 6 | - 6 | 430 | 1 | | + | |
| | | print | | | | | 1 | | 5 | | 430 | | | + | |
| | Ple Chart | Pine | | | | | - 6 | | | | | | -h | 186 | |
| | Più Chart | Canada dada la ca | | | | | + - 2 | + | | - 2 | 430 | | +" | 100 | |
| | | Generale single inves | | | | | | | | | 430 | | | | |
| | | Generate multiple invi | ast ments | · | | | - 6 | | - 5 | - 6 | 430 | | | + | |
| | | Modify | | · | | | - 5 | · | | - 6 | 430 | | | + | |
| | | Save | | | | 5 | - 5 | | 5 | - 5 | 430 | | | | |
| | | Ratriave | | | | - 6 | 5 | | - 6 | - 5 | 480 | | | | |
| | | Copy | | | | - 6 | - 5 | | 6 | - 5 | 480 | | | | |
| | | print | | 1 | | - 5 | - 6 | | - 6 | - 6 | 430 | | | | |
| | Rolling Per F | | | | | - 6 | 6 | | - 6 | - 6 | 430 | MH | l . | 184 | |
| | | Generate single inves | tment graphs | | | - 6 | - 6 | | - 6 | - 6 | 430 | | | | |
| | | Modify | | | | | - 6 | | - 5 | - 6 | 430 | | 1 | | 1 |
| | | Magnity | | | | - 5 | - 6 | 1 | - 5 | - 6 | 430 | | | | 1 |
| | | Save | | | | | | | 6 | 5 | 430 | | | † | |
| | | Retrieve | | · | | - 5 | - 5 | _ | - 6 | - 6 | 430 | | | · | |
| | | Copy | | - | | - 5 | - 5 | + | - 6 | - 5 | 430 | | | † | |
| | | print | | | | | + | + | 4 | | 480 | 1 | - | | |
| | Premium/Dis | | | | | 1 5 | 1 6 | + | 5 | - 6 | 480 | MH | 1 | 184 | |
| | T-THETTE LAND | Generate single inves | han ooka | + | | | + | | | <u></u> | 430 | | | + | |
| | | | UTI WE 636 | + | | | 6 | + | - | - 6 | | | | + | |
| | | Modfy | | | | | ********* | | - 5 | | 430 430 | | | · | |
| | | Save | | | | | - 6 | | | - 6 | | | | | |
| | | Ratriava | | | | | 5 | | . 6 | | 480 | | | | |
| | | Copy | | | | 6 | | | . 6 | | 430 | | | | |
| | | print | | J | | - 5 | - 6 | | - 6 | - 6 | 430 | | | | |
| | scheduled p | rtfolio graphs (graphs sp | ecălato sahedule | d partfolios only] | | - 5 | 6 | | - 6 | - 6 | 430 | | | | |
| | | invest me | rt activity | | | 5 | - 6 | | - 5 | - 6 | 430 | | | | |
| | | | madify | | | - 6 | - 5 | | - 6 | - 5 | 480 | | | | |
| | | | | logarthmic'ine | ar scale | - 6 | - 5 | | - 6 | - 5 | 480 | | | | |
| | ···· | | copy to dip | | | - 5 | - 6 | 1 | - 6 | - 6 | 430 | 1 | - | † | |
| | | | print | T | | - 5 | 6 | 1 1 | - 6 | - 6 | 430 | | | † | |
| | | | View | † | | | | | | | 430 | | | † | |
| | | rightnaus | nd scatterplot | | | | 1 6 | + | 5 | 6 | 430 | | + | + | † |
| | | 119919000 | assign | | | | 1 6 | + | | - 6 | 430 | | + | + | † |
| | | | anca Au | In an object a star | | | | | | - | | | | + | |
| | | | ARRADO | benchmarks | | | - | + | 0 | - 0 | 430 | ł | | + | |
| | | | create | + | | | 5 | + | - 5 | 5 | 430 | | | + | |
| | | | modify | | | | 5 | | - 6 | | 430 | | - | - | |
| | | | | time period | | | 1 6 | | . 5 | | 480 | | | | |
| | | | copy to olip | board | | | 6 | | - 5 | - 6 | 480 | | | | |
| | | | print | | | - 5 | - 6 | | - 5 | - 6 | 430 | | | | |
| | | | viae | | | - 5 | - 6 | | - 5 | - 6 | 430 | | | | |
| | | | | standard devia | tion information | 5 | 6 | 1 | - 6 | | 430 | | | T | |
| | | | | | | | | | | | | | | | |



The Support domain includes features that assist advisors in monitoring over their clients portfolios, as well as features that would help them maintain their own practice. The features in the Support domain also affect the management, publication, and distribution of information.

Two subdomains make up the Support domain:

Portfolio management

 Tools and information used to track and maintain individual client portfolios and advisor investment offerings.

Client/Practice management

• Tools and information to manage overall business practices.

Portfolio/Investment management features

Trade execution

Trade execution is the act of buying an investment that will be included in a client's portfolio.

Portfolio analysis

Advisors analyze two kinds of portfolios:

- Model portfolios that include the investments that advisors offer
- Clients' actual portfolios

Users would be able to, use tools such as the Morningstar Page to analyze a funds portfolio and view/reports such as the Snapshot view in Portfolio mode of Principia to analyze the composition, style categories, and risk ratings of client portfolios.

Portfolio and investment monitoring/rebalancing

Once advisors have established relationships with their clients, they need to watch these investments and, when necessary, make changes to portfolio allocations and compositions.

Advisors usually would reevaluate clients' portfolios on a scheduled, periodic basis or when clients experience major

life changes (wedding, children, divorce, career changes). Depending on the trigger for the re-evaluation, advisors may go back to repeat the features in the Recommend domain.

Clients are also extremely sensitive to market fluctuations. In order to react effectively to clients' concerns, advisors need to track client portfolios, particular investments, and the market as a whole.

• Data notifications and alerts. Users would be able to indicate which investments or data elements within portfolios or investments (Morningstar rating, fund manager) they want to monitor. Alerts can be targeted toward individual investment, individual portfolios, clients, or the entire practice. When changes occur, the system would notify the user of the change.

Portfolio accounting

Portfolio accounting is the process of adjusting holdings information based on splits, dividend, etc. Users of MorningstarAdvisor.com will be able to perform portfolio accounting online.

Security profiles

This includes reports that detail information about investments.

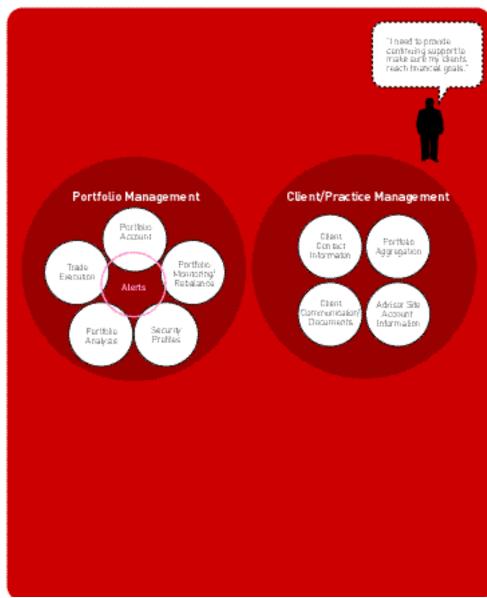
Client/Practice management features

Portfolio aggregation

The aggregation process of is essentially consolidates information from multiple portfolios so that advisors get a more complete picture of the status of their investments. Users would be able to aggregate

- On a client level (multiple portfolios)
- On a practice level (multiple clients with multiple portfolios)







Information management

- Users would have a central repository that contains information that they have saved.
- Users would be able to save information into their own personal area on the site. The following types of information can be saved:
- Graphs and charts
- Search criteria
- Customized layouts
- Alerts and notifications preferences
- Investments that are being tracked
- Reports

Information sharing

Advisors would share information within single advisor firms. Users would have the ability to publish information to all other members of their "advisor group" who have access to the site.

Exporting information

Advisors look to more than one source for their information. They often compare the data they have with many third-party data sources, not just Morningstar. In addition, they need to be able to incorporate external data with internal information and presentation tools. The data exportation feature would allow them save information in multiple formats, including

- Raw text
- Excel formats
- Up to three database formats

This feature is also useful for marketers who would want to incorporate positive information into marketing collateral for both internal and external communications (content selection for products).

User profile/account management

There are two types of accounts available for advisor users:

- The corporate/firm account/profile is essentially a super user account. It should contain the firm-level customizations individual user names within the account, their account information, and the terms and conditions of the sale.
- The individual advisor user account/profile, containing saved information and user preferences.

Site enablers

Site enablers are those underlying relationships, systems, and processes that support or make site features possible. There are two parts of site enablers

- Morningstar business management
- System/technical architecture

Morningstar business management

Morningstar business management refers to operational and fiscal issues related to day-to-day and long-term running of MorningstarAdvisor.com. It includes the following components:

- Partnerships
- Access terms and conditions
- Customer service
- Site operations
- Customer Behavior monitoring

System technical architecture

System architecture refers to underlying code structures that support site attractors. It includes the following components:

- Customization
- Content management system
- Site access
- Alert engine
- Calculation engine
- Report engine
- Data architecture
- Bulletin boards
- E-commerce
- Chat systems



The following charts provide additional detail on the site features. Each line item has been evaluated from the different points of view of the Morningstar business, the user the brand, and the marketplace (competitive value).

Each feature has been ranked on a scale from 5 to 1

- A rating of 5 indicates that the feature s a must have
- A rating of 1 indicates that the feature s a nice to have

The numbers 29 and 14 beneath the column headings indicate the relative weighting of each point of view.

| | Action | Subobject | Action | Subobject | Action | Subobject | Action | Bus 29 | User 29 | Tech 14 | Brand 14 | Mkt 14 | Total 100 | Disc Priority | Disc Phase | Disc # | Notes |
|-------------------------------------|------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------------------------------------------------------------------------|------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|---------------|-------------------------------|----------------|
| ade execution - : | users sho | uld be able | to finali | ize portfoli | o creatio | n by trans | acting trades | 5 | 5 | | 5 | 5 | 430 | | | | |
| ortfolio accountii | ıg - users | should be | able to a | adjust holdi | ng infor | mation for | stock splits and dividends | 5 | 5 | | 5 | 5 | 430 | | | | |
| ortfolio analysis understand wha | t is happe | ning to the | ir portfe | olios | | | s, comparisons, benchmarks) | 5 | 5 | | 5 | 5 | 430 | | | | , |
| | | | | | | | Canned & outlomized reports | | | | | | | | ļ | | |
| | | | | nain: Recomme | | | graphs | 5 | 5 | | 5 | 5 | 430 | | | 400 | |
| | compane - | | | pare portfolios a | gans benc | rm aftek | | | - 6 - 6 | | 5 5 | 6 | 430 430 | MH | 1 | 190 | |
| | | against bench | | sers should be at | de to assim | pre-determined | benchmarks to portfolios | <u></u> | 5 | | 5 | - 6 | 430 | | + | + | + |
| | | | | preselected be | - | | | 5 | | | 5 | | 430 | 1 | | | |
| | | | create | 1 | | - | <u> </u> | 6 | - 5 | | 5 | - 6 | 430 | | † | - | |
| | | | T | oust om bench | mark – users | should be able | to create custom benchmarks | 5 | 5 | | 5 | 5 | 430 | | 1 | | |
| | | | | | combine | | | - 5 | - 5 | | 5 | - 5 | 430 | | | | |
| | | | | | | Indexes | | 5 | - 6 | | 5 | - 6 | 430 | | | | |
| | | | | | | everages. | | 5 | - 6 | | 5 | - 6 | 430 | | | | |
| | | | | | | | | | | | | | 700 | | + | | |
| ertfolie menitori: | ng and ret | | | be able to make | | after comparisor | ns of portfolios nechanisms to monitor | | | | | | 0 | М∺ | ļ | 204 | |
| | ce change: | palancing - s necessar floations - users rits within their p | users si y to kee should be al radios | hould be ab p portfolios bleto assign aler | ile to us in line i tato holding | ater comparison several r with users sewithin podfolio | | | | | | | 0 | | | | |
| | ce change: | palancing - s necessar floations - users rits within their p | users si y to kee should be al ractice alerts (can b | hould be ab p portfolios bleto essign aler se handled throug | ile to uso in line i is to holding | after comparison e several r with users particle portfolio | nechanisms to monitor 'investment goals a, indvidual portfolios, an individual client, and | 5 | 6 | | 5 | 5 | 0 430 | MH | .1 | 204 | |
| | ce change: | palancing - s necessar floations - users rits within their p | users si y to kee should be al radios alerts (can b archive'sa | hould be at p portfolios bloto assign afor se handled throug we users should | ole to uso in line to to holding the dummy the ableto | e several r with users swith portfolio portfolio) archine/save the | nechanisms to monitor 'investment goals a, indvidual portfolios, an individual client, and ir alets | 17 | - 6 | | 5 | 5 1 | 0 430 316 | MH. | | 234 | |
| | ce change: | palancing - s necessar floations - users rits within their p | users si y to kee should be al ractice alerts (can b archive's actup/sub- | hould be at p portfolios bloto assign afor se handled throug we - users should scribe to - users | ile to use in line to the dummy the abletos should be at | e several r with users swithin portfolio portfolio) archine/save the set o defermine | nechanisms to monitor 'investment goals s, indvidual portfolios, an individual client, and ir alerts what datathey want to receive alerts for | 5 | 5 | | 5 5 | 5 1 6 | 430 316 430 | | | 234 | |
| | ce change: | palancing - s necessar floations - users rits within their p | y to kee y to kee should be al raction alerts (can b archive's a satup' sub- | hould be at p portfolios bleto essign afer se handled throug we - users should scribe to - users pancy - users sh | ile to use in line v is to holding the dummy ibe ableto: should be able | e several r with users swithin portfolio portfolio) archine/save the sie to defermine to set up how o | nechanisms to monitor 'investment goals s, indvidual portfolios, an individual client, and ir alerts what datathey want to receive alerts for ten they want to receive alerts | ····· | - 6 | | 5 | 5 1 | 430 396 430 430 | MH. | | 234 | |
| | ce change: | palancing - s necessar floations - users rits within their p | y to kee y to kee should be al raction alerts (can b archive's a satup' sub- | hould be at p portfolios bleto essign afer se handled throug we - users should scribe to - users pancy - users sh | ile to use in line v is to holding the dummy ibe ableto: should be able | e several r with users swithin portfolio portfolio) archine/save the sie to defermine to set up how o | nechanisms to monitor 'investment goals s, indvidual portfolios, an individual client, and ir alerts what datathey want to receive alerts for | 5 | 5 5 | | 5 5 | 6 1 6 | 430 396 430 430 430 | MH. | | 234 | |
| | ce change: | palancing - s necessar floations - users rits within their p | y to kee y to kee should be al raction alerts (can b archive's a satup' sub- | hould be ab p portfolios bleto essign afer se handled throug we - users should scribeto - users sh uency - users should e-mail | ile to use in line v is to holding the dummy ibe ableto: should be able | e several r with users swithin portfolio portfolio) archine/save the sie to defermine to set up how o | nechanisms to monitor 'investment goals s, indvidual portfolios, an individual client, and ir alerts what datathey want to receive alerts for ten they want to receive alerts | 5 6 5 | 5 5 5 | | 5 5 6 6 | 6 1 6 5 5 | 430 396 430 430 | MH. | | 234 231 19 | |
| | ce change: | palancing - s necessar floations - users rits within their p | y to kee y to kee should be al raction alerts (can b archive's a satup' sub- | hould be at p portfolios bleto essign afer se handled through we - users should scribe to - users pandy - users should se should be able | ile to use in line v is to holding the dummy ibe ableto: should be able | e several r with users swithin portfolio portfolio) archine/save the sie to defermine to set up how o | nechanisms to monitor 'investment goals s, indvidual portfolios, an individual client, and ir alerts what datathey want to receive alerts for ten they want to receive alerts | 5 6 5 | 5 5 5 | | 5 5 6 5 | 6 1 6 5 5 | 430 316 430 430 430 430 | MH. | 1 | 234 231 19 | los uservalue |
| | ce change: | palancing - s necessar floations - users rits within their p | y to kee y to kee should be al raction alerts (can b archive's a satup' sub- | hould be at p portfolios bleto essign afer se handled throug we - users should scribe to - users puncy - users sho re should be able e-mail pagers | ole to use s in tine to te to holding the abletous should be able to choose to | e several r with users swithin portfolio portfolio) archine/save the sie to defermine to set up how o | nechanisms to monitor 'investment goals s, indvidual portfolios, an individual client, and ir alerts what datathey want to receive alerts for ten they want to receive alerts | 5 5 5 5 | 5 5 5 5 | | 5 5 5 5 5 | 5 1 5 5 | 430 316 430 430 430 430 36 | MH. | -1 | 234 231 19 | toe uservalue |
| | ce change: | palancing - s necessar floations - users rits within their p | y to kee y to kee should be al raction alerts (can b archive's a satup' sub- | hould be at portfolios bleto essign afer se handled through we - users should seribe to - users should be able e-mail pagers PDAs | ole to use s in tine to te to holding the abletous should be able to choose to | e several r with users swithin portfolio portfolio) archine/save the sie to defermine to set up how o | nechanisms to monitor 'investment goals s, indvidual portfolios, an individual client, and ir alerts what datathey want to receive alerts for ten they want to receive alerts | 5 5 5 5 | 5 5 5 | | 5 5 5 5 5 | 5 1 5 5 | 430 316 430 430 430 430 36 36 36 | MH. | | 234 231 19 | lae uservalue |
| | ce change: | salancing - S necessar floations - users ints within their p Pradice level | vsers si y to ke e should be al raction alerts (can b archive/sa satup/sub- satup/req view - use | hould be at portfolios bleto essign afer se handled through re-users should seribe to -users should be able e-mail pagers PDAs Instart messa | ole to use s in tine to te to holding the abletous should be able to choose to | e several r with users swithin portfolio portfolio) archine/save the sie to defermine to set up how o | nechanisms to monitor 'investment goals s, indvidual portfolios, an individual client, and ir alerts what datathey want to receive alerts for ten they want to receive alerts | 5 5 5 1 1 | 5 5 5 5 5 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 | | 5 5 5 1 1 1 | 5 1 5 5 5 5 1 1 | 430 316 430 430 430 430 36 36 36 86 | MH4 MH3 | | 234 231 19 | for uservalue |
| | ce change: | palancing - s necessar floations - users rits within their p | vsers si y to ke e should be at raction alerts (can b archive/sa satup/sub- satup/sub- satup freq vicer - use | hould be at portfolios bleto essign aler se handled through we - users should seribe to - users should be able e-mail pagers PDAs Instart messa Fax Voice mail | ple to use s in tine to te to holding the abletous should be able to choose to ging | e several r with users swith portfolio portfolio) prother/save the leto defermine to set up how o hrough what me | nechanisms to monitor investment goals s, indvidual portfolios, an individual client, and ir alerts what datathey want to receive alerts for ten they want to receive alerts diathey want to receive alerts | 5 5 5 1 1 1 1 | 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 | | 5 5 5 1 1 1 1 | 5 1 5 5 | 430 316 430 430 430 430 36 36 36 36 36 36 | MH. | | 234 231 19 | Ion user value |
| | ce change: | salancing - S necessar floations - users ints within their p Pradice level | y to ke e should be at raction alerts (can b archive/sa satup/sub- satup/req view - user | hould be at portfolios bleto essign aler se handled through we - users should seribe to - users should be able e-mail pagers PDAs Instart messa Fax Voice mail | ple to use in time in the abletous should be able to choose to choose to the abletous should be able to choose to ch | e several r with users swith portfolio portfolio) protfolio) protf | nechanisms to monitor investment goals s, indvidual portfolios, an individual client, and ir alerts what datathey want to receive alerts for ten they want to receive alerts diathey want to receive alerts | 5 5 5 1 1 1 1 1 1 5 5 3 | 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 | | 5 5 5 1 1 1 1 5 | 5 1 5 5 5 5 1 1 | 430 316 430 430 430 430 36 36 36 36 36 36 | MH4 MH3 | | 234 231 19 | Ice uservalue |
| | ce change: | salancing - S necessar floations - users ints within their p Pradice level | y to ke e should be at raction alerts (can b archive/sa satup/sub- satup/sub- satup freq view - user | hould be ab p portfolios bleto essign aler se handled throug we - users should scribe to - users should semail pagers PDAs Instart messa Fax Voice mail | ple to use in tine in the abletous should be abletous of the abletous should be abletous should be abletous should be abletous should be abletous should be abletous should be abletous should be abletous should be abletous | e several r with users swith portfolio portfolio) archire/save the to set up how o hrough what me archire/save the set o determine | nechanisms to monitor investment goals s, individual portfolios, an individual client, and ir alerts what datathey want to receive alerts for ten they want to receive alerts diathey want to receive alerts ir alerts what datathey want to receive alerts what datathey want to receive alerts what datathey want to receive alerts for | 5 5 5 1 1 1 1 1 1 5 3 5 5 | 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 | | 5 5 5 5 1 1 1 1 5 5 | 5 5 5 5 1 1 1 1 5 | 430 316 430 430 430 430 36 36 36 36 36 36 36 314 | MH4 MH3 | | 234 231 19 17 | loe uservalue |
| | ce change: | salancing - S necessar floations - users ints within their p Pradice level | y to ke e should be at raction alerts (can b archive/sa satup/sub- satup/sub- satup freq view - user archive/sa satup/sub- satup/sub- satup/sub- satup/sub- satup/sub- satup/sub- satup/sub- satup/sub- satup/sub- satup/sub- | hould be at portfolios bleto essign aler se handled through we - users should be able e-mail pagers PDAs Instart messa Fax Voice mail vie - users should scribe to - users | ple to use in tine in the abletous should be abletous should be abletous should be abletous should be abletous should be abletous should be abletould e several r with users swith portfolio portfol | nechanisms to monitor investment goals s, individual portfolios, an individual client, and ir alerts what data they want to receive alerts for ten they want to receive alerts diathey want to receive alerts ir alerts what data they want to receive alerts they want to receive alerts to alerts what data they want to receive alerts for ten they want to receive alerts for ten they want to receive alerts | 5 5 5 1 1 1 1 1 1 5 5 3 | 5 5 5 5 5 5 7 1 1 2 2 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 | | 5 5 5 5 1 1 1 1 5 5 5 | 5 5 5 5 1 1 1 1 5 5 | 430 316 430 430 430 430 36 36 36 36 36 36 36 36 430 430 430 430 430 430 430 430 430 430 | MH4 MH3 | | 234 231 19 | Ion user value |
| | ce change: | salancing - S necessar floations - users ints within their p Pradice level | y to ke e should be at raction alerts (can b archive/sa satup/sub- satup/sub- satup freq view - user archive/sa satup/sub- satup/sub- satup/sub- satup/sub- satup/sub- satup/sub- satup/sub- satup/sub- satup/sub- satup/sub- | hould be at portfolios bleto essign afer se handled through we - users should be able e-mail pagers PDAs instant messa Fax Wolce meil we - users should scribe to - users should scribe to - users should scribe to - users should scribe to - users should se should be able as should be able to should be able to should be able to should be able to - users should be able - users should be able - users should be able - users should be ab | ple to use in tine in the abletous should be abletous should be abletous should be abletous should be abletous should be abletous should be abletould e several r with users swith portfolio portfol | nechanisms to monitor investment goals s, individual portfolios, an individual client, and ir alerts what datathey want to receive alerts for ten they want to receive alerts diathey want to receive alerts ir alerts what datathey want to receive alerts what datathey want to receive alerts what datathey want to receive alerts for | 5 5 5 1 1 1 1 1 1 5 3 5 5 | 5 5 5 5 5 7 8 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 | | 5 5 5 5 1 1 1 1 5 5 5 5 5 5 5 5 5 5 5 5 | 5 5 5 5 1 1 1 1 5 5 | 430 316 430 430 430 430 36 36 36 36 36 36 314 316 430 430 430 | MH4 MH3 | | 234 231 19 57 235 | Ion user value |
| | ce change: | salancing - S necessar floations - users ints within their p Pradice level | y to ke e should be at raction alerts (can b archive/sa satup/sub- satup/sub- satup freq view - user archive/sa satup/sub- satup/sub- satup/sub- satup/sub- satup/sub- satup/sub- satup/sub- satup/sub- satup/sub- satup/sub- | hould be at portfolios bleto essign afer se handled through we - users should seribe to - users should be able e-mail pagers PDAs instant messa Fax Wolce meil vice - users should seribe to - users should seribe to - users should seribe to - users should seribe to - users should seribe to - users should seribe to - users should seribe to - users should seribe e-mail | ple to use in tine in the abletous should be abletous should be abletous should be abletous should be abletous should be abletous should be abletould e several r with users swith portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfolio portfol | nechanisms to monitor investment goals s, individual portfolios, an individual client, and ir alerts what data they want to receive alerts for ten they want to receive alerts diathey want to receive alerts ir alerts what data they want to receive alerts they want to receive alerts to alerts what data they want to receive alerts for ten they want to receive alerts for ten they want to receive alerts | 5 5 5 1 1 1 1 1 5 3 5 5 | 5 5 5 5 5 5 7 1 1 2 2 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 | | 5 5 5 5 1 1 1 1 5 5 5 | 5 5 5 5 1 1 1 1 5 5 | 430 316 430 430 430 430 36 36 36 36 36 36 36 36 430 430 430 430 430 | MH4 MH3 | | 234 231 19 17 | Ice uservalue |
| | ce change: | salancing - S necessar floations - users ints within their p Pradice level | y to ke e should be at raction alerts (can b archive/sa satup/sub- satup/sub- satup freq view - user archive/sa satup/sub- satup/sub- satup/sub- satup/sub- satup/sub- satup/sub- satup/sub- satup/sub- satup/sub- satup/sub- | hould be at portfolios bleto essign afer se handled through we - users should be able e-mail pagers PDAs instant messa Fax Wolce meil we - users should scribe to - users should scribe to - users should scribe to - users should scribe to - users should se should be able as should be able to should be able to should be able to should be able to - users should be able - users should be able - users should be able - users should be ab | ple to use in tine in the abletous should be abletous should be abletous should be abletous should be abletous should be abletous should be abletould e several r with users swith portfolio portfol | nechanisms to monitor investment goals s, individual portfolios, an individual client, and ir alerts what data they want to receive alerts for ten they want to receive alerts diathey want to receive alerts ir alerts what data they want to receive alerts they want to receive alerts to alerts what data they want to receive alerts for ten they want to receive alerts for ten they want to receive alerts | 5 5 1 1 1 1 1 5 3 5 5 | 5 5 5 5 5 7 8 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 | | 5 5 5 5 1 1 1 1 5 5 5 5 5 5 5 5 5 5 5 5 | 5 5 5 5 1 1 1 1 5 5 | 430 316 430 430 430 430 36 36 36 36 36 36 314 316 430 430 430 | MH4 MH3 | | 234 231 19 57 235 | Ion uservalue |

| Fax Voice mail Portfolio lavel alerts archive/save - users should be able to archive/save their alerts active/save - users should be able to determine what data they want to receive alerts for setup frequency - users should be able to determine what data they want to receive alerts for setup frequency - users should be able to determine what data they want to receive alerts setup frequency - users should be able to though what mediat hey want to receive alerts setup frequency - users should be able to though what mediat hey want to receive alerts for setup frequency - users should be able to determine what data they want to receive alerts for setup frequency - users should be able to archive/save their alerts archive/save - users should be able to archive/save their alerts for setup frequency - users should be able to archive/save their alerts for setup frequency - users should be able to set up how often they want to receive alerts for setup frequency - users should be able to set up how often they want to receive alerts for setup frequency - users should be able to set up how often they want to receive alerts for setup frequency - users should be able to set up how often they want to receive alerts for setup frequency - users should be able to set up how often they want to receive alerts for setup frequency - users should be able to set up how often they want to receive alerts for setup frequency - users should be able to set up how often they want to receive alerts for setup frequency - users should be able to set up how often they want to receive alerts for setup frequency - users should be able to set up how often they want to receive alerts for setup frequency - users should be able to set up how often they want to receive alerts for setup frequency - users should be able to set up how often they want to receive alerts for setup frequency - users should be able to set up how often they want to receive alerts for setup how often they want to receive alerts for setup how often they wa | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---------------|
| Patfolio level alerts 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 | 1 1 86 | |
| Portrotio level alerts 5 5 5 archive/save - users should be able to archive/save their alerts 3 5 5 5 astupf subscribe to - users should be able to determine what data they want to receive alerts for 5 5 5 astup frequency - users should be able to set up how off entirely want to receive alerts 5 5 5 vice - users should be able to choose through what mediat hey want to receive alerts 5 5 6 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 | 1 1 86 | |
| archive/save - users should be able to archive/save their starts 3 5 5 setup/subscribe to - users should be able to determine what data they want to receive alierts for 5 5 setup frequency - users should be able to set up how often they want to receive alierts 5 5 5 vice - users should be able to choose through what mediathey want to receive alierts 5 5 5 setup frequency - users should be able to choose through what mediathey want to receive alierts 5 5 5 setup frequency - users should be able to archive/save their plants 5 5 5 setup frequency - users should be able to archive/save their plants 5 5 5 setup frequency - users should be able to determine what data they want to receive alierts 6 5 5 setup frequency - users should be able to determine what data they want to receive alierts 6 5 5 setup frequency - users should be able to determine what data they want to receive alierts 6 5 5 setup frequency - users should be able to determine what data they want to receive alierts 6 5 5 setup frequency - users should be able to determine what data they want to receive alierts 6 5 5 setup frequency - users should be able to decrease through what mediat hey want to receive alierts 6 5 5 setup frequency - users should be able to decrease through what mediat hey want to receive alierts 6 5 5 setup frequency - users should be able to decrease through what mediat hey want to receive alierts 6 5 5 setup frequency - users should be able to decrease through what mediat hey want to receive alierts 6 5 5 setup frequency - users should be able to decrease through what mediat hey want to receive alierts 6 5 5 setup frequency - users should be able to decrease frequency - users should be able to decrease frequency - users should be able to decrease frequency - users should be able to decrease frequency - users should be able to decrease frequency - users should be able to decrease frequency - users should be able to decrease frequency - users should be able to decrease - users along the users - users along the users - users along | | WH 1 236 |
| satup frequency - users should be able to set up how often they want to receive alerts 5 5 6 e-mail 5 6 6 e-mail 5 6 6 e-mail 5 6 6 e-mail 5 6 6 e-mail 5 6 6 e-mail 5 6 6 e-mail 5 6 6 e-mail 5 6 6 e-mail 5 6 6 e-mail 5 6 6 e-mail 5 6 6 e-mail 5 6 6 e-mail 6 e-mail 6 e-mail 6 e-mail 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | 5 1 316 | |
| satup frequency - users should be able to set up how often they want to receive alerts 5 5 6 e-mail 5 6 6 e-mail 5 6 6 e-mail 5 6 6 e-mail 5 6 6 e-mail 5 6 6 e-mail 5 6 6 e-mail 5 6 6 e-mail 5 6 6 e-mail 5 6 6 e-mail 5 6 6 e-mail 5 6 6 e-mail 5 6 6 e-mail 6 e-mail 6 e-mail 6 e-mail 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | 6 6 430 | |
| a-mail 5 5 6 pagers 1 1 1 PDAs 1 1 1 Instant messaging 1 1 1 Voice mail 5 5 6 archive/save - users should be able to archive/save their elects 5 5 6 archive/save - users should be able to determine what data they want to receive alerts 5 5 6 saturp/subscribe to - users should be able to determine what data they want to receive alerts 5 5 6 wise - users should be able to obcose through what media they want to receive alerts 5 5 6 a-mail 5 5 6 pagers 1 1 1 PDAs 1 1 1 | 5 5 430 | I 19 |
| e-mail 5 5 5 | 5 5 430 | |
| PDAs | 5 6 430 | 1 17 |
| Instant messaging 1 1 1 Fax 1 1 1 Voice mail 1 1 Holding level elerts 5 5 archive's ave - users should be able to archive's ave their elerts 3 5 satup's ubscribe to - users should be able to determine what data they want to receive alerts 5 5 satup frequency - users should be able to determine what data they want to receive alerts 5 5 satup frequency - users should be able to set up how often they want to receive alerts 5 5 wiser - users should be able to choose through what media they want to receive alerts 5 5 e-mail 5 5 pagers 1 1 1 PDAs 1 1 1 | 1 1 98 | |
| Fax 1 1 1 Voice mail 1 1 Holding level elets 5 5 archive'save - users should be able to archive'save their elets 3 5 satup'subscribe to - users should be able to determine what data they want to receive alerts for 5 5 satup frequency - users should be able to set up how often they want to receive alerts 5 5 vice - users should be able to choose through what media they want to receive alerts 5 5 e-mail 5 5 pagers 1 1 1 PDAs 1 1 1 | 1 1 58 | low uservalue |
| Voice mail 1 1 Holding level stats 5 5 and live's aver-users should be able to determine what data they want to receive alerts for 5 5 saturp's ubscribe to - users should be able to determine what data they want to receive alerts for 5 5 saturp frequency - users should be able to set up how often they want to receive alerts 5 5 view - users should be able to choose through what media they want to receive alerts 5 6 e-mail 5 5 pagers 1 1 PDAs 1 1 | 1 1 98 | |
| Holding level elets 5 5 5 archive's aver-users should be able to determine what data they want to receive alerts 7 5 5 setup subscribe to - users should be able to determine what data they want to receive alerts for 7 5 5 setup frequency - users should be able to set up how often they want to receive alerts 7 5 5 vice - users should be able to choose through what media they want to receive alerts 7 5 5 e-mail 5 5 5 pagers 7 1 1 PDAs 1 1 | 1 1 86 | |
| archive/save - users should be able to determine what data they want to receive alerts for 5 5 sotup/subscribe to - users should be able to determine what data they want to receive alerts for 5 5 sotup frequency - users should be able to set up how often they want to receive alerts 5 5 view - users should be able to choose through what media they want to receive alerts 5 5 5 e-mail 5 5 5 pagers 1 1 1 1 PDAs 1 1 1 | 1 1 86 | |
| satup/subscribe to - users should be able to determine what data they want to receive alerts for 5 5 sotup frequency - users should be able to set up how often they want to receive alerts 5 5 view - users should be able to choose through what media they want to receive alerts 5 5 5 e-mail 5 5 5 pagers 1 1 1 1 PDAs 1 1 1 | 5 6 430 M | WH I 237 |
| sotup frequency - users should be able to set up how often they want to receive alerts 5 5 view - users should be able to choose through what mediathey want to receive alerts 5 5 e-mail 5 6 pagers 1 1 PDAs 1 1 | 6 1 316 | |
| view - users should be able to choose through what media they want to receive alerts 5 5 e-mail 5 6 pagers 1 1 PDAs 1 1 | 5 5 430 | |
| e-mail 5 5 5 pagers 1 1 1 PDAs 1 1 1 | 5 5 430 | 1 19 |
| pagers 1 1 1 | 5 6 430 | 1, 1, |
| PDAs 1 1 | 5 6 430 | 1 17 |
| | 1 1 86 | |
| | 1 1 86 | los uservakie |
| Fax 1 1 | 1 1 5 56 | |
| Voice mail 1 1 | 1 1 86 | |
| modify portfolios - refer to Recommend: Opportunity Qualification - Portfolio creation | + | |

| | | | | | | | | 3000000 | | 0000000 | | XXXXXXX | | Disc | Disc | | |
|----------------------|-----------|------------------|---------------|------------------|-------------|-------------------|---------------------------------|-----------|------------|------------|-------------|-----------|--------------|----------|-------|--------|-------|
| | Action | Subobject | Action | Subobject | Action | Subobject | Action | Bus 29 | User 29 | Tech 14 | Brand 14 | Mkt 14 | Total 100 | Priority | Phase | Disc # | Notes |
| nformation manag | ement | | | | | | | | | | | | | | | | |
| | say o | 1 | | | | 1 | | - 6 | - 6 | | - 6 | - 6 | 430 | | | T | |
| | | charte/graphs | | | | | | - 6 | - 6 | | - 6 | - 6 | 430 | | | | |
| | | search orteria | | | | | | - 5 | - 5 | | - 6 | 5 | 430 | | | | |
| | | cust omized lay | | | 1 | T | | - 5 | - 5 | | - 5 | - 5 | 430 | | | | |
| | | alerts and notif | | | | | | - 5 | - 5 | | - 5 | 5 | 430 | | | | |
| | | alerts and notif | ication profe | rences | | | | - 6 | - 6 | | - 6 | - 6 | 430 | | | | |
| | | investments int | ormation | | | | | - 6 | - 6 | | - 6 | - 6 | 430 | | | 1 | |
| | | reports | | | L | | | | - 5 | | 5 | - 5 | 430 | | | | |
| Portfolio aggregatio | on | | | | | | | | i | | | | | | | | |
| | aggregate | 1 | | | 1 | | | - 6 | - 6 | | - 6 | - 6 | 430 | | | | |
| | | aggregated po | rtfolio- | 1 | † | Ť | | - 5 | - 5 | | - 5 | 5 | 430 | | 1 | 1 | |
| | | | vien | | | | | - 5 | - 5 | | - 5 | - 5 | 430 | | | | |
| | | | 92V G - US60 | a should be able | to save agg | regaled portfolio | 39 | - 6 | - 5 | | - 5 | 5 | 430 | | | | |
| lient information o | nanagem | ent - users | should | he able to s | nteran | d save add | ress information for clients | | | | | | | | | | |
| | | | | DC 0010 101 | | | ress intermediation for edenies | | | | | | | | | | |
| d save some types | ofclient | ommunica | itions | | | | | | | | | | | | | | |
| | manage | | | | | | | | 1 | | | | D | | | | |
| | | address inform | ation | | | | | - 5 | 6 | T | - 5 | - 6 | 430 | MH | | 1123 | |

| Practice N | lanag | gement S | Subdo | main | | | | | | | | | | | | | | |
|----------------|-------------|--------------------|-------------------|-------------------------------------|-----------------|------------------|---------------------------------------|-----------------------------------------|----------|--------------|--------------------------------------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|-------|----------------|-----|----|
| | | | | | | | | | | | | | | | | | | |
| | | | create | | | | | | - 5 | - 5 | | 5 | - 5 | 430 | | | | |
| | | | say e | | | | | | 5 | 5 | | 5 | 5 | 430 | | | | |
| | | | liae | | | | | | - 6 | - 6 | | - 6 | - 6 | 430 | | | | |
| | | | edt | | | | | | - 6 | - 6 | | - 6 | - 6 | 430 | | | | |
| IT | ranage | | | | 1 | | | | | | | | | | | | | |
| | | client communic | atlans/doou | ments | 1 | | | | - 6 | 5 | | - 6 | - 5 | 430 | | | | |
| | | | 92V G | | | | | | 0 | 5 | | 1 | 3 | 201 | | | | |
| | | V | / law | | | | | | - 6 | - 6 | T | - 6 | - 6 | 430 | | | | |
| | | | edt | | | | | | - 6 | - 6 | | - 6 | - 6 | 430 | | | | |
| 9 | end | | | | | | | | | 1 | | *************************************** | | ************ | | | | |
| | | artidesto clients | - users she | ould be able to a | send articles t | lo alient (aoulo | be done via e-mail) | , | - 5 | 5 | | - 6 | 3 | 402 | MH | 1 | 124 | |
| | | newsletters to di | ionts | 1 | Υ | | | | | | | | | 0- | | T | T | |
| | | feedback - users | would be a | able to send info | rmation to Mi | ominestar | · · · · · · · · · · · · · · · · · · · | | - | ************ | 1 | | | D | | | | 1 |
| | | | receive | 1 | | | | | † | | | | | D | | + | | 1 |
| | | | | M* newsletter | contant on m | ".com already | 1 | | 4 | 1 | | 4 | | 330 | | + | | 1 |
| | | \h | | | 0000000000 | 0000000000 | | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | | | | | | | | abaaaaaaa | | .4 |
| e account info | |) P | | | | | | | | | | | | | | | | |
| H | ranage | | | | | | | | L | | | | | | | | | |
| | | advisor user acc | ount | | | | | | | - | | | | | | | | |
| | | | og in | | † | | | | - 5 | 5 | | - 5 | - 5 | 430 | MH | 1 | 4 | |
| | | | 92V Q | | T | | | | - 5 | - 5 | | - 6 | - 5 | 430 | | | T | |
| | | | law | 1 | 1 | | 1 | | - 6 | - 5 | *************************************** | 5 | - 5 | 430 | | 1 | 1 | 1 |
| | | | update | 1 | 1 | | 1 | | - 6 | - 6 | † <u>†</u> | - 6 | - 6 | 430 | | 1 | 1 | 1 |
| | | | | são access. | | | 1 | | | <u> </u> | | ······ | <u></u> | 430 | | 1 | - | 1 |
| | | | | terms & concil | iona | | | | 5 | - 6 | _ | - 5 | - 6 | 430 | | | | |
| | | | | Payment struct | | | | | 5 | - 6 | | - 5 | - 6 | 430 | | | | |
| | | | | r-aymer sinu | LINE | | | | - | ****** | | | *********** | | | - | | - |
| | | | print | on A Con- | | | | | - 5 | 5 | + | - 5 | - 6 | 430 | мн | - | a | 1 |
| | | advisor user prof | | er & timi) | | | | | | | | | | | | - | 6 | - |
| | | | log in | <u> </u> | ļ | ļ | | | - 6 | - 6 | | - 5 | - 6 | 430 | MH | | 4 | |
| | | | | Fundionalty | | | | | - 5 | - 5 | | - 5 | - 5 | 430 | | | 9 | |
| | | | | Data | | | | | 5 | - 5 | | | - 5 | 430 | | 1 | 9 | |
| | | | sayo | | | | | | - 6 | - 6 | | - 6 | - 6 | 430 | MH | JI | 7 | |
| | | | | Type of austion | er. | | | | - 6 | - 6 | | - 6 | - 6 | 430 | MH | ļi . | 7 | |
| | | | | Payment struct | ure | | | | - 5 | - 6 | | | | 430 | MH | 1 | 7 | |
| | | | | Multiple past q | | 28 | | | - 6 | - 5 | 1 | - 6 | - 5 | 430 | MH | 1 | 7 | |
| | | | riam | The second second second second | 1 | T | | | - 6 | 5 | 1 | - 6 | - 5 | 430 | | | + | |
| | | | update. | | | | | | | <u> </u> | + | | | 430 | | | | 1 |
| | | | opciate. print | | | | | | - 6 | - 6 | | - 6 | - 6 | 430 | | - | | - |
| | | | | | | | | | | <u> </u> | | | | 430 | IMH | - | 0 | + |
| | | advisorfirm acco | | ļ | ļ | | | | - | - | | | | 87.75 | MH | | 8 | |
| | | | og in | ļ | ļ | | | | - 5 | 5 | | - 6 | - 5 | 430 | 14671 | | | |
| | | | manage | | | | | | 5 | 5 | | 5 | 5 | 430 | | | | 4 |
| | | | | passwords | | | | | - 6 | - 6 | | - 6 | - 6 | 430 | | | | |
| | | | | | create | | | | - 6 | - 6 | | - 6 | - 6 | 430 | | | | |
| | | | | | edit | | | | - 6 | - 5 | | - 6 | - 5 | 430 | | | | |
| | | | 92 V Q | | | | | | - 5 | - 5 | | - 6 | - 6 | 430 | MH = | | 7 | |
| | | (| ior | | T | 1 | | | - 5 | - 6 | | - 5 | - 6 | 430 | | | T | |
| | | | update | | | | | | 5 | 5 | 1 | 5 | - 6 | 430 | | | | |
| | | | print | | | | | | - 6 | 6 | † <u>†</u> | - 6 | - 6 | 430 | | | | |
| | | advisorfirm prof | | | | | | | | · | | | *************************************** | *************************************** | MH | 1 | 8 | |
| | | <u> </u> | | | | | | | 5 | - 5 | | - 5 | - 6 | 430 | MH | ii | | |
| | | | log in | | | | | | | | | 5 | - 6 | 430 | | - | | |
| - | | | manage | | | | | | 5 | - 5 | | | ~~~~~~ | | | | | + |
| - | | | | pasawords | | | | | - 6 | - 6 | + | - 6 | - 6 | 430 | | | | |
| _ | | | | | create | | | | | - 5 | | 5 | 6 | 430 | | | | |
| | | | | | edit | | | | - 6 | - 6 | | - 6 | - 6 | 430 | | | | |
| | | | 92 V G | | | | | | - 5 | - 5 | | - 6 | - 5 | 430 | MH≃ | | 7 | |
| | | 4 | rion | | | | | | - 6 | - 5 | | - 6 | - 5 | 430 | | | | |
| | | | update. | | | | | | - 6 | - 5 | | 6 | - 6 | 430 | | | | |
| | | | print. | | | | | | - 6 | - 6 | 1 | - 6 | - 6 | 430 | | | | |
| :- :- :- | | | | | | | | | | | | | | | | | | |
| m information | nshari | ng | | | | | | | | | | | | | | | | |
| 0 | ublish - us | ers should be able | et o publish | their search orb search resuts t | teria to other | users within th | eir firm | | - 6 | 3 | | - 6 | - 6 | 22.7 | | | | |
| | | | | | | | | | | | | | | | | | | |



Business Management

Site enablers

Site enablers are those underlying relationships, systems, and processes that support or make site features possible. There are two parts of site enablers

- Morningstar business management
- System/technical architecture

Morningstar business management

Morningstar business management refers to operational and fiscal issues related to day-to-day and long-term running of MorningstarAdvisor.com. It includes the following components:

- Partnerships
- Access terms and conditions
- Customer service
- Site operations
- Customer behavior monitoring

System technical architecture

System architecture refers to underlying code structures that support site attractors. It includes the following components:

- Customization
- Content management system
- Site access
- Alert engine
- Calculation engine
- Report engine
- Data architecture
- Bulletin boards
- E-commerce
- Chat systems

Morningstar
Business Management

Pertnerships Adversang UperAccours Service Service Coperations Distance Help

System Architecture

Cudomussion CMSPCMS SelvAccess Aleri Engine Engine Engine Reper Architecture

Business Management

Stac Distance Behavior Behavior Monitoring State

State Distance Behavior Monitoring State

State Distance Behavior Monitoring State

State Distance Behavior Monitoring State

State Distance Behavior Monitoring State

State Distance Behavior Monitoring State

State Distance Behavior Behavior B

Business Management

The following charts provide additional detail on the site features. Each line item has been evaluated from the different points of view of the Morningstar business, the user the brand, and the marketplace (competitive value).

Each feature has been ranked on a scale from 5 to 1

- A rating of 5 indicates that the feature s a must have
- A rating of 1 indicates that the feature s a nice to have

The numbers 29 and 14 beneath the column headings indicate the relative weighting of each point of view.

| | | | | | | | | (222,222) | RARRARE | URRRRRR | RESERVED | CORRER | URRARARA | Disc | Disc | _ | |
|------------------------|------------|-------------------------------|----------------|---------------------------------|-----------------|-----------------|------------------------------------|-----------|---------|---------|--------------------------------------------------|--------|----------|----------|--------|---------|-----------------------------------------|
| | ction | Subobject | Action | Subobject | Action | Subobject | Action | Bus | User | Tech | Brand | Maria | Total | | | Disc# | Notes |
| | ction | Supobject | Action | Subobject | Action | Supobject | Action | 29 | 29 | 14 | 14 | 14 | 100 | risolity | riidad | DISC # | Hotes |
| - | | | | | | | | 29 | 49 | | | | 199 | | | | |
| | | | İ | | | | | | | | | | | | | | |
| Customerservice - this | s refer | s to anythi | ng that h | elps users | interact | with the s | site succesfully | | | | | | | | | | |
| | | oroelwizards (m | | | | | | - 5 | 3 | | 3 | 1 | 288 | | 1 | 141 | |
| m | nandatry a | let singfligations | -mandatory | alorts are sort t | o all she use | rs. [Implemenat | tion as an alert is not mandatory; | | | | | | | | | | |
| | | complished thro | | | | | | | | | | | | 1 | | | |
| | | M* broadcast r | nesseges | | | | | - 5 | - 6 | | 5 | 6 | 430 | | | | |
| | | M* process ale | rts - changes | a to M* mathodo | logy | | | - 5 | - 6 | | 5 | - 6 | 430 | | | 23 | |
| | | M ^{or} definition at | erta (style bo | xes) -changes1 | o™ date del | initions | | - 5 | 6 | | - 5 | 6 | 430 | | | 23 | |
| | | M" error alerts | -Notification | s of data errors | corredions | | | 1 | - 5 | | 3 | 2 | 244 | | I | I | |
| st. | tatio help | | | | | | | | | | | | | MH | I | 27, 142 | |
| v | iaw | | | | | | | | | | | | 0 | | | | |
| | | | | m aument infarn | vation) | | | 5 | - 5 | | 5 | - 5 | 430 | | | | |
| | | legal life (new |) | I | I | | | 5 | - 5 | | 5 | - 5 | 430 | | | | |
| Partnerships | | | | | | | | | | | | | | | | | |
| | iaw | | | | | | 1 | | | | | | 0 | | + | + | + |
| | | ada - ada shou | d be availab | e on Morningst | sA dy lear, con | i | | | | **** | | 3 | 286 | | + | | los value |
| e | onned to | | 7 | 1 | 7 | | | | | | | | D. | | + | | |
| | | third party Web | sites | † | † | | † | | | | | | 0- | MH | 1 | 128 | |
| | | | | (e-commerce, | FiTech, Click? | Bearn) | | | | | | | D | MH | 1 | 118 | |
| Business development | | | | | | | | | | | | | - | | 1 | | .,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |
| b usiness deve topment | -1 | | T | | | | 7 | | | | | | | | TH | 27.87 | 1 |
| . S | M 61 | retail oustomer | Eto addores | | | | | | | | 1 | | 0 | | +'' | 27,07 | |
| _ | all | Let BL COSCOLUS | SLD BOXINGS | | | | | | | | ļi | | <u>u</u> | | + | + | + |
| S | ell . | ann numar fant | nint on Monn | ingstar.com to a | diam. | | | | | | | | <u>6</u> | | n | + | |
| - | | advisor site ac | | a comment of the comment of the | CarristCarte | | | | | | | | 430 | | | + | - |
| | | educational ma | | | | | ÷ | | | | | - | 0 | + | + | | |
| | | third party tem | | | | | † | | - 2 | | 3 | 2 | 273 | | + | | |
| | | | - (2 2 2 2 2 | | | | | | | | ······ | | | | | | |
| Customer behavior mo | niterin | ng . | | | | | | | | | | | | | | | |
| in | rack | | L | <u> </u> | | | | | | | | | D | | ļ., | | |
| | | advisor cilent fo | | e | | | | | | | | | O- | | 111 | 131 | |
| | | personeization | | | | | | | | | <u></u> | | <u>C</u> | | | 133 | |
| | | oustomization | | | | | | 5 | 4 | | 1 1 | 1 | 289 | | | | |



Section 4

Advisor User Scenarios

Scenarios are fictional representations of how someone might see a site, and of how the site might affect the way users perform certain tasks. For MorningstarAdvisor.com, Sapient has created two "day-in-the-life" stories: one for an independent advisor, the other for a captive advisor.







Charlie McCall

Charlie McCall put out his shingle, McCall Financial Advisors, nine years ago when he left his insurance salesman job at State Farm. He now heads an office of three advisors and two assistants. Charlie has long-term relationships with many of his clients, who are generally upper-middle-class baby boomers. Lately, they've had more money to spend and, as they age, they've been asking his advice about other areas of their lives: Where should our children go to college? Do we have enough money to retire?

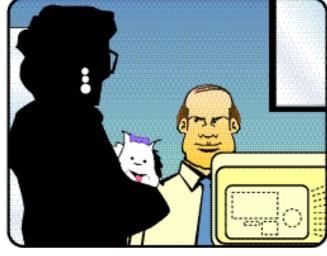
Benefits

- Abundance of Morningstar information helps support recommendations.
- Export information to save valuable time previously spent entering data manually.
- Easily track and compare performance of favorite investments.
- Stay updated on industry trends.
- Remain competitive by taking convenient distance-learning courses.









Scene 1

Charlie's first meeting of the day is with Mike and Janice Peterman, new clients and first-time investors. Charlie works with them to fill out a **risk-assessment questionnaire**, which he prints from MorningstarAdvisor.com. The assessment shows that they have a low risk tolerance, so, with help from **MorningstarAdvisor.com articles**, Charlie **explains the benefits** of investing in bonds and Blue Chip funds. Then, from **his model portfolio** on MorningstarAdvisor.com, he pulls up information about his three favorite Blue Chip funds and **plots a graph** showing their 15-year performance data. He successfully encourages Mike and Janice to choose the least volatile of the funds.

Scene 2

During lunch, Charlie works on his **quarterly online newsletter**. The new year has just passed, a good time to educate his clients about tax planning. Charlie searches through the **index of consumer articles** available on Morningstar.com. He finds a great article about capital gains tax laws, so he **creates a link** to it in his newsletter.

Every quarter, Charlie also highlights his **three top-performing funds**. From his portfolio on MorningstarAdvisor.com, Charlie quickly accesses this year's **rate of return data** for those funds. He **downloads this data** to his hard drive, from where he can paste it into his newsletter template.

Scene 3

One Janus fund in Charlie's list of favorites hasn't been performing well. Charlie formed a strong relationship with Janus, though, so he wants to **replace this fund** with another **Janus fund**. Charlie goes to Janus' page on MorningstarAdvisor's **Virtual Trade Show**, where he learns about three new Janus funds with the profile he wants.

He researches Morningstar's **archives for articles** about these funds, and then looks at their **performance and profile information**. After he has selected a fund, Charlie exports the data from Morningstar to **create a report** justifying his decision to his partners.

Scene 4

Charlie's last appointment is at 6 p.m. June Ford is a wealthy middle-aged woman whom Charlie has **worked** with for years. June's husband, Paul, passed away six months ago, leaving her with over \$2 million in assets. She needs advice about Paul's investments, and she mentions needing to revise her will.

Charlie has only a passing familiarity with estate planning, so he refers June to an attorney friend of his. When June leaves, Charlie signs up for a **distance-learning course** through MorningstarAdvisor.com that will teach him the ins and outs of wills, life insurance, and inheritance taxes. Next time he'll be **better prepared**.



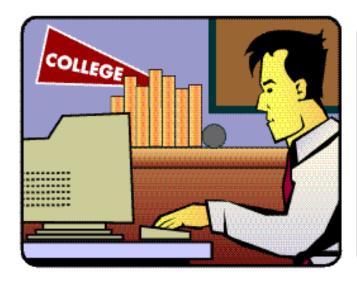


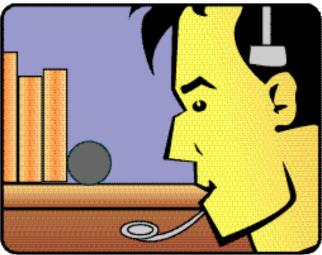
Dominic Giordano

Three years ago, Dominic Giordano joined Merrill Lynch as an investment counselor. It's his first job, and he's under tremendous pressure to perform well. To impress his boss, he focuses on selling his company's products. Most of his clients are like him—active, in their 20s or 30s, with high incomes.

Benefits

- Simplify and streamline research with alerts.
- · Access detailed competitive data.
- Respond quickly to customer concerns and requests.
- Support recommendations with attractive graphs and tables.
- Collaborate with other advisors.









Scene 1

This morning, Dominic arrives early to study for an upcoming exam. He remembers seeing a related **study guide** on MorningstarAdvisor.com, so he logs in. For a small fee, he **downloads it to his hard drive**, where he'll look at it again later.

When Dominic checks his email, he finds a message telling him that Merrill's stock of the day is Home Depot. Dominic adds this stock to the list of **investments he tracks** on MorningstarAdvisor.com.

Scene 2

Next, Dominic researches yesterday's market activity. **Customized alerts** he set up on

MorningstarAdvisor.com let him know that three competitive healthcare funds skyrocketed yesterday. Also, the **manager changed** at his top-selling international fund. He'll have to keep an eye on it, so he **updates the alerts** to notify him when the fund rises or falls more than 20% and when the fund's profile changes.

Dominic spends much of his time making and receiving **phone calls**. Yesterday's market fluctuations worried some of his clients. They **need reassurance** that Dominic is taking care of their investments.

Scene 3

Marcy Mason calls at 1 p.m. She has a \$12,000 bonus she wants to invest. She'll need this money to buy a house, so Dominic knows to look for a **moderately conservative** investment. Unfortunately, Marcy has her heart set on a technology fund. Dominic **immediately checks MorningstarAdvisor.com** for data on the technology fund as well as a large cap fund that his company has been pushing lately.

On the site, he creates a **convincing graph** that demonstrates the volatility of the technology industry over the past 10 years. He **saves it, then emails it** to Marcy, along with statistics about the large cap fund. Marcy is **impressed** that Dominic gets his information from Morningstar because she visits Morningstar.com herself sometimes. Convinced, she goes with the large cap. Dominic's **boss will be pleased** with that sell.

Scene 4

After lunch (schmoozing with a wholesaler), Dominic prepares for his 3 o'clock. They're his first \$100,000 clients, a young couple with two kids. Will they want to talk about their kids' college funds? That's new territory for Dominic. He'll have to research it. What do other advisors do in this situation?

On MorningstarAdvisor.com, Dominic finds a **message board** about college saving. He reads through the postings and learns that most advisors use a moderate asset allocation for college funds. With that in mind, he returns to the Morningstar data, where he creates a couple of **hypothetical reports** using Merrill's preferred funds. With a few adjustments, Dominic creates a recommendation that he's confident will be **right for his clients**.

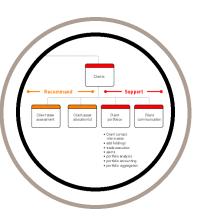
Dominic's day ends around 7 p.m. These 12-hour days are better than the 14-hour days he was working last year. Morningstar has really helped him use his time more efficiently.



Section 5

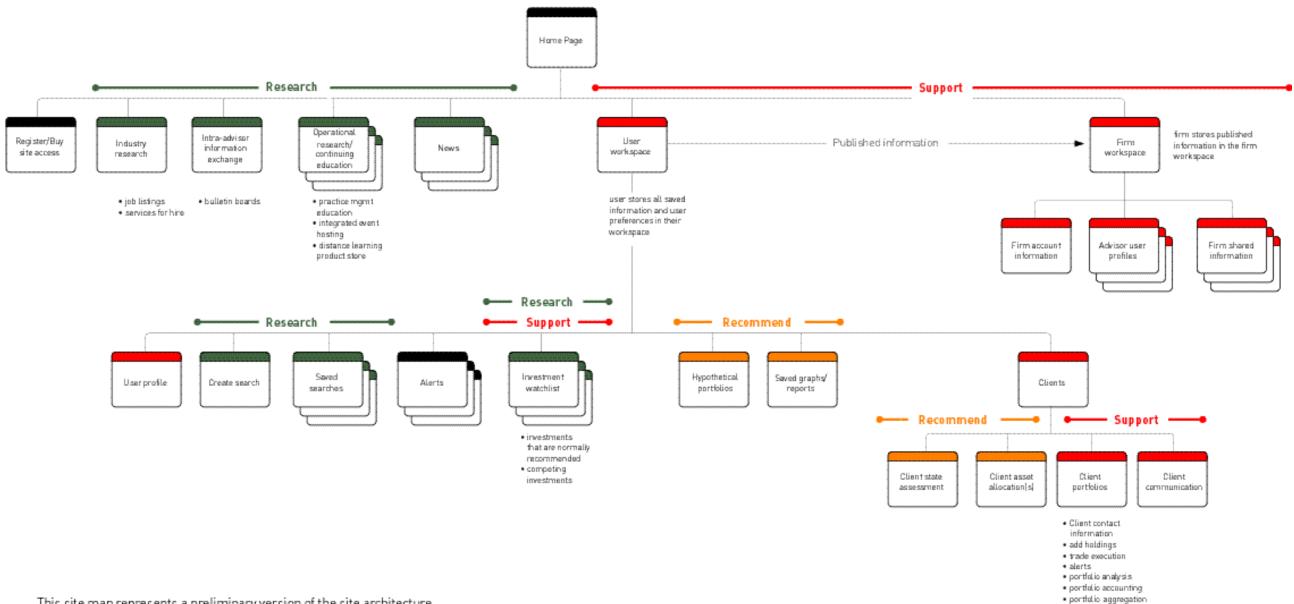
Advisor Site Map

This site map provides a high-level idea of how MorningstarAdvisor.com might be organized at a high level. This version is preliminary; in design, Morningstar could expect a site map that drills further down in the site.





MorningstarAdvisor.com



This site map represents a preliminary version of the site architecture. It is only preliminary and should not be considered final.

Section 8

Institutional Features

An information architecture for a Web site begins with understanding the features of the site, how those features relate to each other, and how users would interact with those features.





Institutional Feature Domain Description

Site Benefits

MorningstarInstitutional.com offer should the following benefits to its customers:

- Ability to save information digitally in your personal "Internet workspace" eliminates the need to find papers or other analog representations of data
- Access comprehensive Morningstar investment data, including:
- Detailed historical statistics, which you can manipulate
- Detailed expense and cash flow information
- Morningstar categories
- Research new product opportunities
- Receive timely Morningstar data updates
- Set up customized alerts for information that is important to your work. Stay on top of:
- Competitive quantitative data
- Competitive organization changes
- Investment style drift
- Marketplace opinion of your investments
- Marketplace opinion of your company
- Set up and save customized searches
- Set up customized time periods
- Set up and save customized information layouts so you can
- Perform peer comparisons
- Compare holdings
- Export data into multiple formats that more easily plugs into the tools you use
- Create graphs and tables of information to communicate information more clearly

MorningstarInstitutional.com

These diagrams are called feature domains. They represent high-level collections of features in MorningstarInstitutional.com that fulfill shared needs of Morningstar's institutional audiences.

MorningstarInstitutional.com will focus on three main institutional audiences: investment managers; marketing communications professionals; and fiduciaries, which may include plan sponsors and boards of directors.

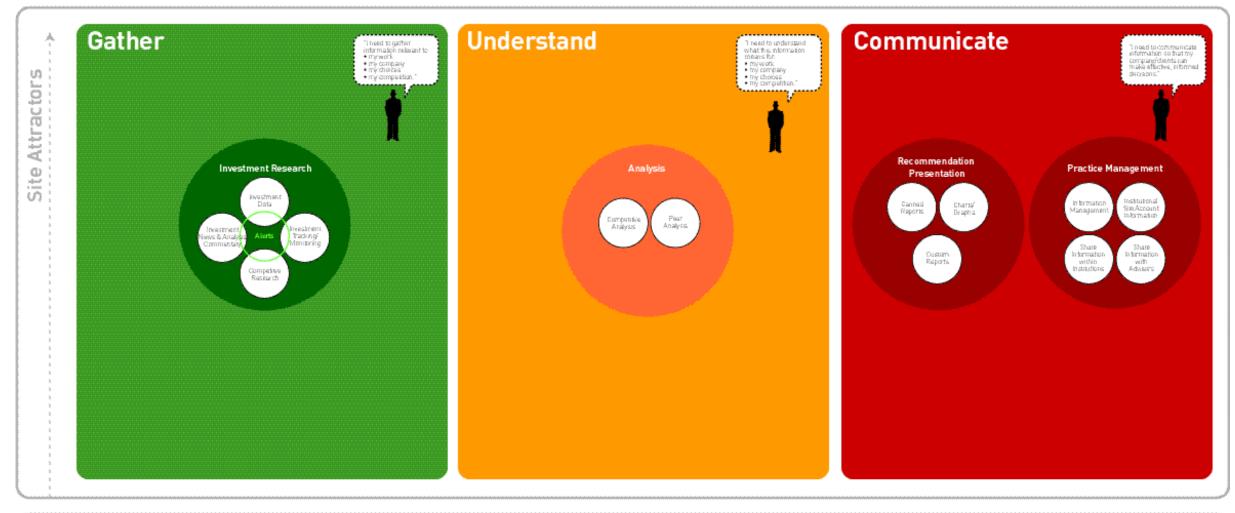


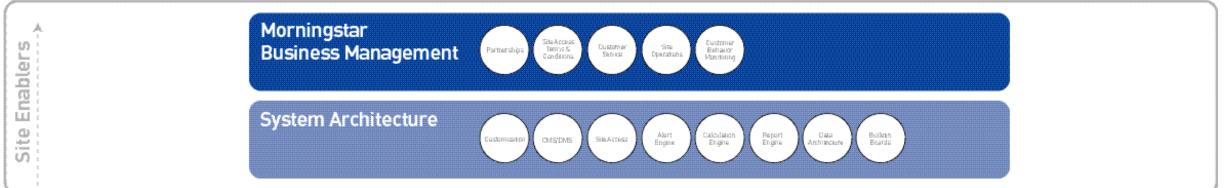
| INSTITUTIONAL AREA OF WORK | DOMAIN |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| Seeking information from data sources. | Gather |
| Standardizing collected information/raw data so that points of understanding can be discerned. | Understand |
| Developing a point of view about raw data. Creating materials ad documents that communicate that point of view so that decisions can be made. | Communicate |

s

Institutional Feature Domains

Each domain breaks down into gradually smaller groups of features, and eventually into discrete tasks. While these domains do not represent a hierarchy or navigational structure, they will provide the foundation for MorningstarInstitutional.com's information architecture.





Definition

The Gather domain includes features that allow institutional audiences to access and collect information.

Creating various quantitative reports is a big part of investment managers' jobs, so they need to accumulate large amounts of information about their funds, their competitors' funds, and the market. Some of these reports are scheduled, but many come from spontaneous requests for information. Therefore, investment managers need to have as much information at their fingertips as possible. Also, because fiduciaries use these reports to make important decisions about the company's funds, it's critical that data be timely and accurate.

Marketing communications also spends time collecting information, although much of their data comes directly from investment managers. They "use" information to create a positive impression of their company, so they may also have interest in qualitative information, such as Morningstar commentary.

Fiduciaries, as a rule, would rarely use the Gather features. They rely on investment managers and marketing communications to provide the information they need to make decisions.

In general, institutional audiences gather the following investment-related information:

- Raw investment data pertaining to their own organization, their competitors, and other third parties
- Investment news, analysis, and commentary pertaining to their own organization and their competitors.

Supporting features

The following site features support the Gather domain

Investment data

- Access to Morningstar mutual fund investment data, commentary, and analysis
- Access to detailed information about the investments tracked by Morningstar

 Data notifications and alerts. Users would be notified about the latest data changes on funds of their choice. Users would be able to indicate which funds or data elements within funds (Morningstar rating, fund manager) they want to monitor. When changes occur, the system would notify the user of the change.

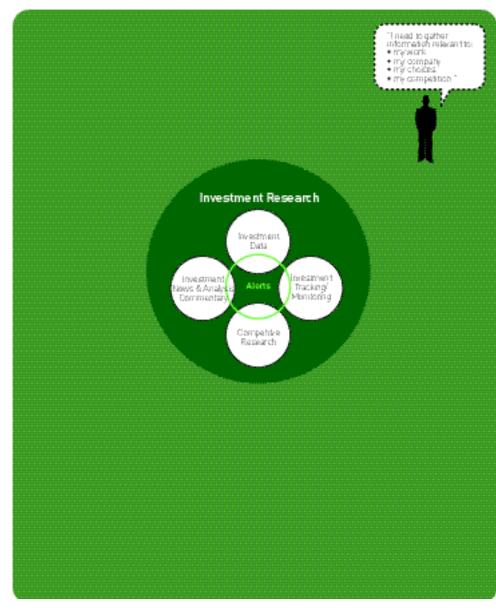
Investment data layout customization

- Users would be able to create customized views of Morningstar mutual fund investment data similar to what is available in the Principia Research mode.
 Users would be able to
- Determine the types of mutual fund categories (domestic stock funds, international stock funds, etc.) they want to display
- Select the data elements (fund name, Morningstar category, Morningstar rating) they want to display
- Set the order in which the data elements display
- Sort the data displayed by the data elements they choose

Investment data search

- Search Morningstar mutual fund investment data
- Create complex searches using multiple operators, fields, conditions, and relational variables (and, or, not, less than, greater than, equal to) based on any data element
- Create and save search criteria
- Data notifications and alerts. Users would be notified about the latest data changes to the results of their search criteria. Users would be able to indicate which searches they want to monitor. When changes occur that affect the number of search for a given search, the system would notify the user.







Investment commentary and news

Institutional users, particularly marketing personnel, need to know what is being said about them in the industry. They also need to be aware of industry trends. As a result, this feature would include:

- Access to Morningstar Mutual Fund Category
 Overviews
- Access to Morningstar Summary Sections mutual fund investment commentary
- Access to Morningstar Commentary Archive
- Data notifications and alerts. Users would be notified about the latest commentary and news that is relevant to them (what is being said about their business and their competitors). Users would be able to indicate "keywords" that they want to monitor. When new information is available containing these "keywords," the system would notify the user.

Investment tracking and monitoring

Institutional users, particularly fund managers, need to understand how their funds are performing in comparison to their competitors. Fund managers also need to be aware of new investments that they might want to include in their offerings. Therefore this feature would

- Track peer investments
- Track competitor investments
- Track your company's investments

It is understood that institutional users would not be using strict portfolio creation as it exists in Principia, but would need to be able to track and compare investments.

Exporting information

Institutional users look to more than one source for their information. They often compare the data they have with many third-party data sources, not just Morningstar. In addition, they need to be able to incorporate external data with internal information and presentation tools. The data

exportation feature would allow them save information in multiple formats, including:

- Raw text
- Excel formats
- Up to three database formats

This feature is also useful for marketers who would want to incorporate positive information into marketing collateral for both internal and external communications (content selection for products).

Printing information

Users would be able to print information. The use of .PDF files and other tools would be used to maintain formatting.

Feature opportunities

The following features could be added to MorningstarInstitutional.com in the future.

Investment commentary and news

Currently, all Morningstar commentary is targeted to individual and professional investors. This commentary holds limited value to the institutional audience. The development of commentary targeted specifically to the institutional audience should be looked into as an option for this site.

Access to another databases, such as:

- Variable annuity/life
- Separate accounts
- Money market funds



The following charts provide additional detail on the site features. Each line item has been evaluated from the different points of view of the Morningstar business, the user the brand, and the marketplace (competitive value).

Each feature has been ranked on a scale from 5 to 1

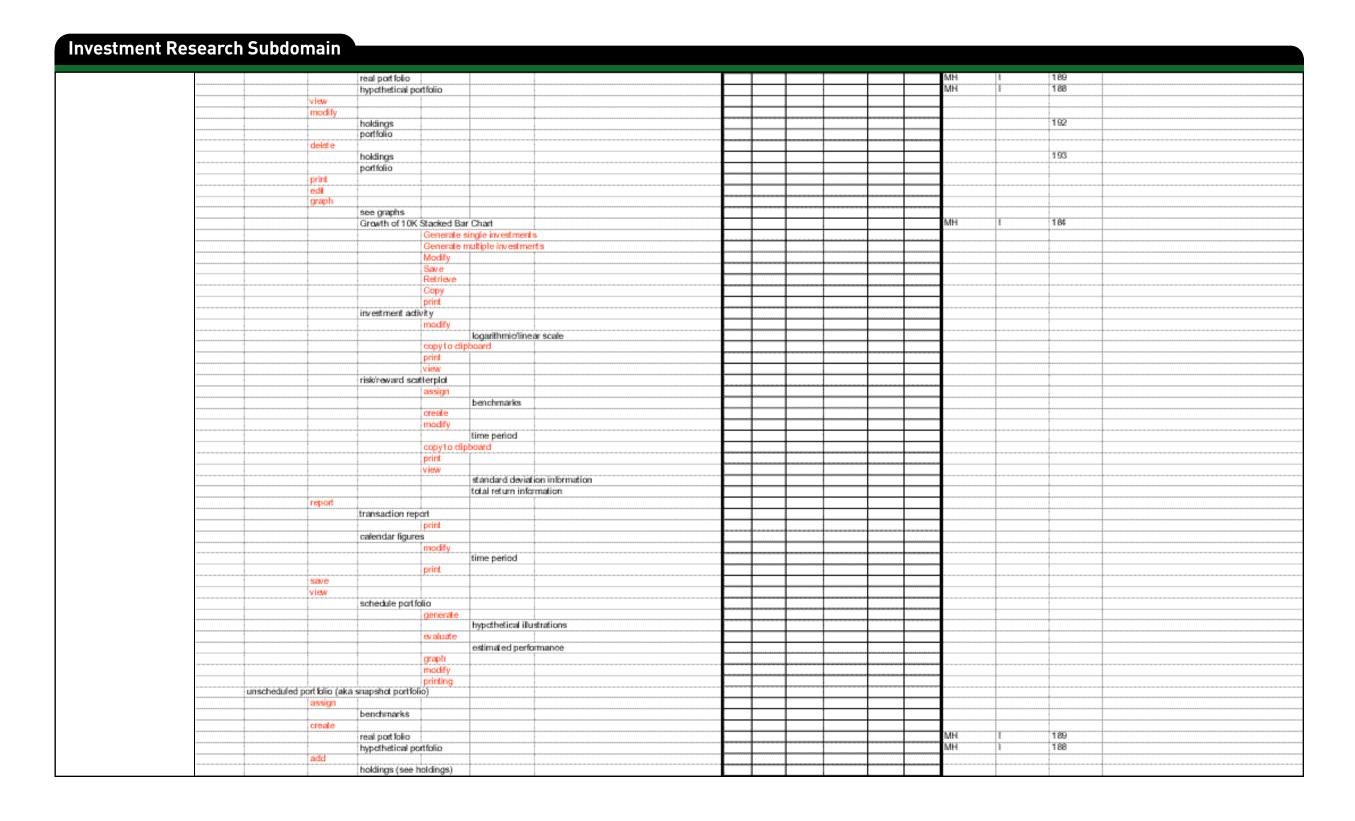
- \bullet A rating of 5 indicates that the feature s a must have
- A rating of 1 indicates that the feature s a nice to have

The numbers beneath the column headings indicate the relative weighting of each point of view.

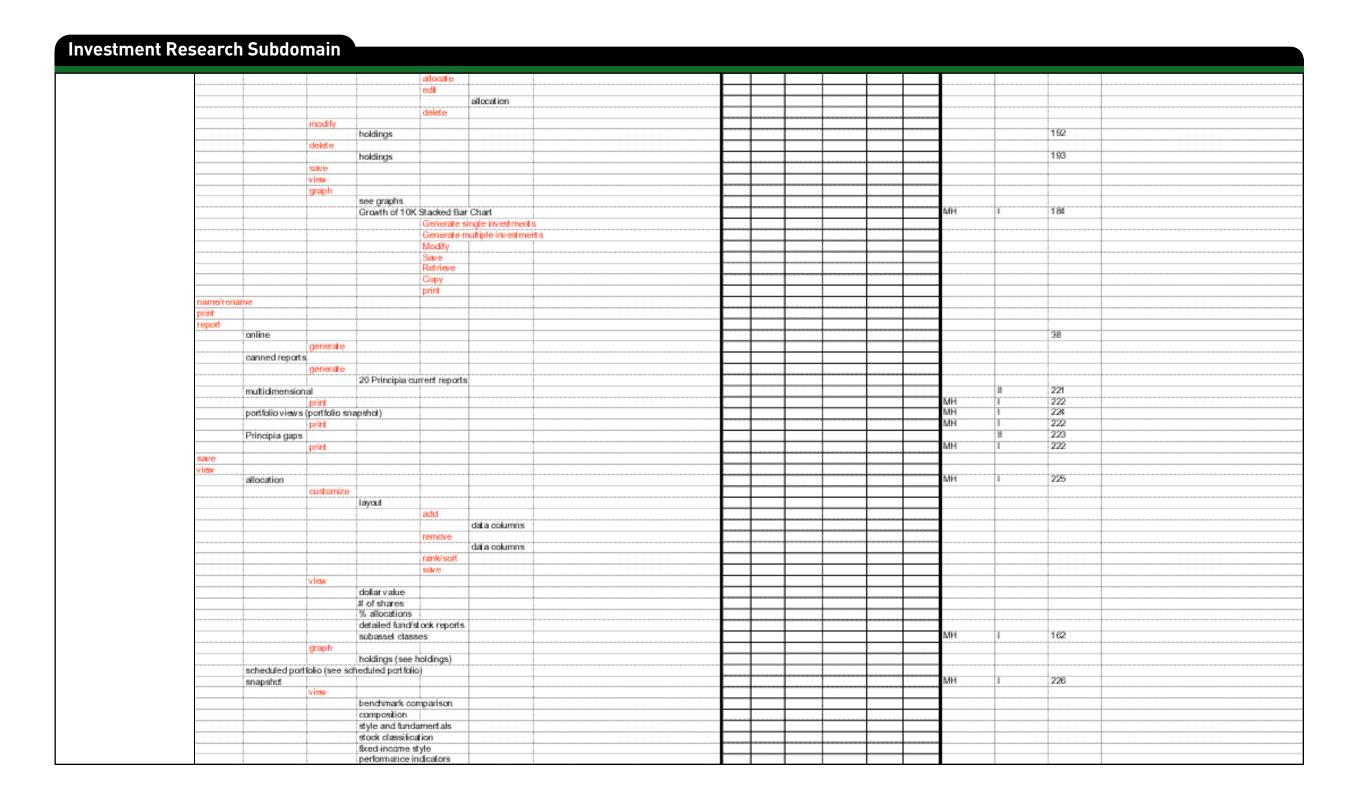
| | Action | Subobject | Action | Subobject | Action | Subobject | Action | Bus | User | Tech | Brand | Mkt | Total | Disc Priority | Disc Phase | Disc # | Notes |
|--------------|-------------|------------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------------|----------------------------|--------|----------|---------|------------|-----------------------------------------|----------------|------------------|---------------|--------|-------------------------------------------------|
| | | | | 1 | | | | 25 | | 25 | 13 | 000000000000000000000000000000000000000 | 100 | | | | |
| estment data | | | | | | | | | | | | | | | | | |
| | view detail | - users should b | e able to vi | ew detailed infon | mation about | mutual funds | I | | | | | | | | | | |
| | | mutual fund de | | should be able to | access the | following views | of mutual fund information | | | | | | | | | | |
| | | - | view | holdings | | | | 5 | 5 | - | \vdash | 1 | 262.5 | | | | port folio |
| | | | | | | | | | | - | | | 202.0 | | | | Geared toward institutional; could have institu |
| | | | | Morningstar p | | | ļ | 4 | . 4 | | | 1 | 212.5 | | | | directed commentary |
| | | | | Paris de la constantina della constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina della constantina della constantina della constantina della constantina della constantina della constantina della constantina della constantina della constantina della constantina della constantina della constantina della constantina della constantina della constantina della constantina della constantina della constantina della constantina della constantina della | magnify | | | | - | | | - | 0 | | | | Not attribution |
| | | + | | Performance of Indexes | rana | | | 5 | - 5 | | | 5 | 312.5 0 | | | | NO. MISSORIOS |
| | | | | Morningstar ca | ategories | | | 5 | - 5 | | | 3 | 287.5 | | | | |
| | | | | Basic Detail | | | | 5 | - 5 | | | | 250 | | | | |
| | | | | Investment ap | | ļ | | 5 | 5 | | | 5 | 312.5 | | | | |
| | | | - | Risk/Return po Basic perform | | | | 5 | 5 | | | 5 | 312.5 312.5 | | | | |
| | | | | Growth of 10K | | | | 5 | 5 | - | | <u>-</u> 5 | 312.5 | | · | | |
| | | | | Portíolio | graper | | | 5 | - 5 | | | | 250 | | | - | Apples to apples |
| | | | 1 | Composition of | | | | 5 | 5 | | | 3 | 287.5 | | | | |
| | | | | Stock statistic | | | | 5 | 5 | | | 3 | 287.5 | | | | |
| | | | | Sectorweight | | | | 5 | - 5 | ļ | | 3 | 287.5 | | | | |
| | | - | - | Declared was | modifyvie | V | ļ | 5 5 | 5 | | | 3 | 287.5 | | | | |
| | | + | | Regional expo Regional exp | hietory oran | h | - | 5 | | | ********** | 3 | 312.5 287.5 | | | | |
| | | | | Band quality | 1 | 1 | | 5 | 5 | | | 5 | 312.5 | | | | |
| | | | 1 | Gov1 bond sta | tistics graph | | | 5 | - 5 | | | - 5 | 312.5 | | 1 | | |
| | | | | Risk-Reward | | | | 5 | 5 | | | | 250 | | | | |
| | | - | - | Rolling return | | | | | 5 | ļ | | 5 | 312.5 | | | - | |
| | | | | + | modify view | time periods | | 5 | - 5 5 | | | *************************************** | 250 250 | | | | - |
| | | † | † | Rolling return | | time periods | <u> </u> | 5 | 5 | | | - 6 | 312.5 | | - | | |
| | | | | × × × × × × × × × × × × × × × × × × × | modify view | | | 5 | - 5 | | | | 250 | | | | |
| | | | | 1 | | time periods | | 5 | - 5 | | | | 250 | | | | |
| | | | | Rolling return | | stable | | 5 | - 5 | | | | 312.5 | | | | |
| | | - | | Performance | | | <u> </u> | 5 | | | | 5 | 312.5 312.5 | | | | |
| | | - | | Trailing period | modify view | ј V | | | | | | <u>D</u> | 250 | | | | |
| | | | | | | time periods | | 5 | 5 | | | | 250 | | | | |
| | | | | Nominal vs. re. | | | | 5 | - 5 | | | - 5 | 312.5 | | | | |
| | | | | | modify view | | | 5 | 5 | | | *************************************** | 250 | | | | |
| | | | | | | time periods | | 5 | 5 | | | | 250 | | | | |
| | | + | ļ | Investment sty History tables | | · | | 5 | - 5 5 | | | <u>1</u> | 262.5 312.5 | | · | | |
| | | + | <u> </u> | History graphs | | | <u> </u> | 5 | 5 | _ | | - 5 | 312.5 | | - | | |
| | | † | † | Total return gr | | | <u> </u> | 5 | - 5 | | | 5 | 312.5 | | · | | |
| | | | | | modifyvier | v | | 5 | - 5 | | | | 250 | | | | |
| | | | | | | time periods | | 5 | - 5 | | | | 250 | | | | |
| | | <u> </u> | | Net assets rel Turnover grap | | return graph | | 5 | 5 | | | 5 | 312.5 312.5 | | | | Buy & sell stocks |
| | | - | | Expense ratio | | · | | 5 | 5 | - | | | 312.5 | | + | | Cuy a sell sours |
| | | | | Expense ratio | | s caracin | | 5 | 5 | | | 5 | 312.5 | | | | |
| | | 1 | 1 | Analyses | | 1 | | 5 | 3 | | | 1 | 212.5 | | † | | non-compliance; may not be able to use if |
| | | | | Analyst review | | | | 5 | 3 | | | 1 | 212.5 | | | | |
| | | | | Manager profi | le | | | 5 | 5 | | | 1 | 262.5 | | | | |
| | | | | Category over | view | | | 5 | - 5 | | | 3 | 287.5 | | | | |
| | | | | Operations Nuts & bots | | | | 5 | 5 | | | - 5 | 187.5 312.5 | | | | address, etc. |

| searcn | Subdor | main | | | | | | | | | | | | | | |
|---------------------------|---------------------|------------------------------|---------------------|------------------------------|-------------------------------|-----------------------------------------------|----------|--------------------------------------------------|--------------------------------------------------|-------------|----------|----------------|---------|-----------------|-----------|-----------------------------------|
| | | | F | | | | T : | | , | _ | | 2425 | 1 | _ | | |
| | | n afest | Fees & expens | 86 | | | - 5 | 5 | | | ь. | 312.5 | | | | |
| | | print | ÷ | | | | \vdash | | | | | 0 | | | | |
| allow are of the of the | | export | le to assign alert | n fin has a steel | ant data | | | | | | | <u></u> | | | | |
| apercyricalii | data sierte - ue | snould be abl | e able to assign | storivesini starteto invi | estment data | | 5 | 5 | | | 3 | 287.5 | | | 18, 21 | Thresholds, M* fund code or uniqu |
| | Camer Macress - 125 | Carlo Machand D | c and to assign | and to the | CAPITICAL GRAM | L | | | | | | 201.0 | | + | | |
| | | setup/subsc | cribe to - users s | hould be abl | e to determine f | or what data they want to receive alerts | | | | | | 0 | | | | |
| | | | | | | en they want to receive alerts | | | | | | 0 | | | 19 | |
| | | VIEW - LISTERS | | to choose th | rough what med | fia they want to receive alerts | _ | 1 | 1 | | | 0 | K1952 | | 17 | |
| | | | e-mail | | | | 5 | 5 | - | | 3 | | NTH | - B | g t | |
| | | ļ | pagers | | | | 3 | 3 | | | <u>2</u> | 175 | | | | |
| | | ļ | PDAs | | | | 3 | 3 | ļ | | 2 | 175 | | | | |
| | | | Instant messag | eng | | | 3 | 3 | | | 2 | 175 | | + | | |
| | | | Fax Molec mail | | | | 3 | 3 | 1 | | 2 | 175 | - | - | - | |
| | | | Voice mail | | | | 3 | 3 | 1 | | 2 | 175 | | | | |
| | | | Web | h a shire s - | and the state of the state of | 1.4. | - 5 | 5 | | | 1 | 262.5 | | | - | |
| | L | archive/sav | e - users should | be able to a | rchiversave their | alefts | | | | | | 0 | | | | |
| customize li rank/sort | ayout - users sh | ould be able | to customize the | display of r | esearch informa | tion similar to Principia research mode | 5 | 5 | | | 5 | 312.5 0 | MH | E | (Advisor) | Define level of |
| Tables Suits | Single variable | - users show | ad be able to ran | k/sort infrem | sation on single | variables | | 5 | | *********** | 5 | 312.5 | | - | | |
| | | | hould be able to | | | | 4 | 5 | | | <u>5</u> | 287.5 | | - | | |
| | | | stment data (with | | | ipe varianes | 5 | 5 | | | - 5 | 312.5 | | | | |
| | | | investment data | | 7 | | - | - | | _ | | 0 | мн | 5 | 61 | |
| | | | ble to create their | | dead an amb ark | L | - | | | | | | 2011.5 | · | - 01 | |
| | creena - users | | | | | | | ļ | | | | 0 | NILE. | | 66 | |
| | | create - use | | e to create t | neir own oustoin | ized search criteria | 5 | 5 | | | 5 | 312.5 | MH | | 67, 68 | |
| | | + | universe | | | | 5 | 5 | - | | 5 | 312.5 312.5 | | - 15 - 15 | 69 | |
| | | ļ | categories | | | | - 5 | 5 | ļ | | 5 | | MH | | 70 | |
| | | ļ | data elements | L | | | - 5 | - 5 | | | 5 | 312.5 | MH | - 12 - 12 | | |
| | | Ļ | preset paramet | | | | - 5 | - 5 | _ | | - 5 | 312.5 | DATE: | - I | 57 | |
| | | <u> </u> | custom calcula | | | | - 5 | - 5 | | | 5 | 312.5 | K79625 | 180 | 62 | |
| | | | question forma | | <u></u> | | 3 | 3 | ļ | | 3 | 187.5 | NTH | 12 | 72, 64 | |
| | | | e - users should | | | 143 | 5 | 5 | | | 5 | 312.5 | MH | 1 | 72, 65 | |
| | | eat - users | should be ablet | o eat search | i criteria | | - 5 | - 5 | | | 5 | 312.5 | 184115 | B | 72, 00 | |
| | | publish - us | ers should be at | le to publish | search criteria | to other users within their institution | | 4 | | | | 100 | | | | |
| | | alerts/notific | cations | | | | | | | | | | | | | |
| | | | Search criteria | level alerts - | users should be | able to assign aferts to search criteria | 5 | 5 | | | 1 | 262.5 | | | | Funds added or dropped for crite |
| | | | | | oribe to - users s | hould be able to determine what criteria they | | | | | | 0 | | | | |
| | | | | | ency - users sho | ould be able to set up how often they want to | T | | | | | | | | 19 | |
| | | | | view - users | should be able | to determine through which media they want t | 0 | | | | | - U | | | 100 | |
| | | ļ | ļ | receive aler | , | γ | | | | | | 0 | KC#D: | -l _s | | |
| | | + | | | e-mail | ļ | 5 | - 5 | - | | 3 | 287.5 | e4 5 Pt | ļ | 17 | |
| | | <u> </u> | <u> </u> | | pagers | | 3 | 3 | 1 | | 2 | 175 | | | | |
| | | ļ | <u> </u> | | PDAs | 1 | 3 | 3 | ļ | | 2 | 175 | | | | |
| | | ļ | ļ | | Instant messag | ing | 3 | 3 | | | 2 | 175 | | | | |
| | | | | | Fasc | | 3 | 3 | | | 2 | 175 | | | | |
| | | ļ | | | Voice mail | | 3 | 3 | | | 2 | 175 | | | | |
| | | | ļ | | Web | | - 5 | - 5 | | | 1 | 262.5 | | | | |
| | | + | | | | | 1 | | | | | 0 | www. | | | |
| | search results | | | | | | | | | | | | | | | |
| | | view - users | s should be able | | | | - 5 | - 5 | | | 5 | 312.5 | MH | E | 74 | |
| | | view - users export - use | | e to export s | earch criteria in | o multiple formats | 5 | | | | 5 | 312.5 312.5 | MH | E | 74 | See other rank/sort (136) |

| | | | undate - co | ers should be of | Neto re-rue | searches and un | derstand what has changed in the search | | | | | | | | | |
|--------------------|------------------------|------------------------------------|---------------|---------------------|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|------------|---|-----------------------|---------------|----------------|----|----|------|--------|
| | | 1 | results | | | | Sales and the sales of the sales | 5 | 5 | | 5 | 312.5 | мн | a. | 76 | |
| petitive research | - users | will be ab | le to rese | earch comp | eting of | ferings | | | | | | | | | · · | , |
| stment comment | | | | | | | | | | | | | | | | |
| | , | | | | | | | | | | | | | | Ĭ | |
| | view - use | | | estment news an | d comment a | ry | | | | | | | | | | |
| | | M* Summary s | | | | | | . 3 | 3 | | | 212.5 | | | | To MFB |
| | | Morningstar Co Morningstar Co | | | ÷ | | | - 3 - 4 | 5 | | | 212.5 287.5 | | | | |
| | alerts/ncti | | | le to assign alert | s to investm | ent news and co | nment any | | | | | 207.0 | | - | | |
| | | News & comm | entary alerts | 1 | | | | | | | | | | | | |
| | | | archive/sav | e - users should | | | | | | | | | | | 1 | |
| | | | setup/subs | cribe to - users s | should be abl | e to determine w | hat data they want to receive alerts for | | | | | | | | | |
| | | | setup frequ | ency - users sho | ould be able t | o set up how off | en they want to receive alerts | | | | | | | | | |
| | | | view - user | s should be able | to choose th | rough what med | ia they want to receive alerts | | | | | | | | | |
| | | 1 | | e-mail | | . | | | | | | | | | | |
| | | | ļ | pagers | ļ | | | | | | | | | | | |
| | | + | | PDAs | | | | | | \longrightarrow | -+ | | | | | |
| | | + | + | Instant messag | prig | | | \vdash | - | -+ | \rightarrow | | | | | |
| | | + | + | Voice mail | + | | | - | | | | | | - | + | - |
| | print - use | rs should be able | to print inve | stmert news an | d commenta | rv | | | | | | | | - | | |
| formance of inves | stments see also li | vestment data | | | | everat met | han isms to watch the | | | | | | | | | |
| formance of inves | stments see also li | vestment data | | | | everat met | nanisms to watch the | | | | | | | | | |
| formance of inves | stments see also li | vestment data | ould be able | to create port foli | | everacmed | nanisms to water the | | | | | | | | | |
| formance of inves | stments see also li | vestment data folios - users sh | ould be able | to create portfoli | | everacine | nanisms to water the | | | | | | | | 5.04 | |
| formance of inves | stments see also li | vestment data folios - users sh | ould be able | | ide | everat met | nanisms to water the | | | | | | | | 191 | |
| formance of inves | stments see also li | vestment data folios - users sh | ould be able | to create portfoli | allocate | by % | nanisms to watch the | | | | | | | | 191 | |
| formance of inves | stments see also li | vestment data folios - users sh | ould be able | to create portfoli | allocate | | | | | | | | | | 191 | |
| formance of inves | stments see also li | vestment data folios - users sh | ould be able | to create portfoli | allocate | by % by market value by shares | | | | | | | | | 191 | |
| formance of inves | stments see also li | vestment data folios - users sh | ould be able | to create portfoli | ios aflocate | by % by market value by shares by equal % | | | | | | | | | 191 | |
| formance of inves | stments see also li | vestment data folios - users sh | ould be able | to create portfoli | ios aflocate | by % by market value by shares | | | | | | | | | 191 | |
| formance of inves | stments see also li | vestment data folios - users sh | ould be able | to create portfoli | ios aflocate | by % by market value by shares by equal % | 6 | | | | | | | | 191 | |
| formance of inves | stments see also li | vestment data folios - users sh | ould be able | to create portfoli | ios aflocate | by % by market value by shares by equal % by not equal % | e schedule kump sum investments | | | | | | | | 191 | |
| formance of inves | stments see also li | vestment data folios - users sh | ould be able | to create portfoli | ios aflocate | by % by market value by shares by equal % by not equal % | e schedule kump sum investments schedule systematic investments | | | | | | | | 191 | |
| formance of inves | stments see also li | vestment data folios - users sh | ould be able | to create portfoli | ios aflocate | by % by market value by shares by equal % by not equal % | e schedule kump sum investments schedule systematic investments | | | | | | | | 191 | |
| formance of inves | stments see also li | vestment data folios - users sh | ould be able | to create portfoli | ios aflocate | by % by market value by shares by equal % by not equal % holding schedu | e schedule kump sum investments schedule systematic investments | | | | | | | | 191 | |
| formance of inves | stments see also li | vestment data folios - users sh | ould be able | to create portfoli | ios aflocate | by % by market value by shares by equal % by not equal % | e schedule kump sum investments schedule systematic investments | | | | | | | | 191 | |
| formance of inves | stments see also li | vestment data folios - users sh | ould be able | to create portfoli | allocate assign | by % by market value by shares by equal % by not equal % holding schedu | e schedule kump sum investments schedule systematic investments | | | | | | | | 191 | |
| formance of inves | stments see also li | vestment data folios - users sh | ould be able | to create portfoli | aflocate assign | by % by market value by shares by equal % by not equal % fielding schedu | e schedule kump sum investments schedule systematic investments | | | | | | | | 191 | |
| formance of inves | stments see also li | vestment data folios - users sh | ould be able | to create portfoli | allocate assign | by % by market value by shares by equal % by not equal % holding schedu alerts allocation | e schedule lump sum investments schedule systematic investments edit overwrite | | | | | | | | 191 | |
| formance of inves | stments see also li | vestment data folios - users sh | ould be able | to create portfoli | affocate affocate assign edit delete move | by % by market value by shares by equal % by not equal % fielding schedu | e schedule lump sum investments schedule systematic investments edit overwrite | | | | | | | | 191 | |
| formance of inves | stments see also li | vestment data folios - users sh | ould be able | to create portfoli | aflocate assign | by % by market value by shares by equal % by not equal % holding schedu alerts allocation from one port fo | e schedule lump sum investments schedule systematic investments edit overwrite | | | | | | | | 191 | |
| formance of inves | stments see also li | vestment data folios - users sh | ould be able | to create portfoli | aflocate aflocate assign edit delete move | by % by market value by shares by equal % by not equal % fielding schedu alerts allocation from one port for | e schedule lump sum investments schedule systematic investments edit overwrite | | | | | | | | 191 | |
| formance of inves | stments see also li | vestment data folios - users sh | ould be able | to create portfoli | affocate affocate assign edit delete move | by % by market value by shares by equal % by not equal % holding schedu alerts allocation from one port for | e schedule lump sum investments schedule systematic investments edit overwrite | | | | | | | | 191 | |
| formance of inves | stments see also li | vestment data folios - users sh | ould be able | to create portfoli | aflocate aflocate assign edit delete move | by % by market value by shares by equal % by not equal % ficiding schedu alerts allocation from one port fo transaction rep- calendar figure- | e schedule lump sum investments schedule systematic investments edit overwrite | | | | | | | | 191 | |
| rformance of inves | stments see also li | vestment data folios - users sh | ould be able | to create portfoli | aflocate aflocate assign edit delete move | by % by market value by shares by equal % by not equal % holding schedu alerts allocation from one port for | e schedule lump sum investments schedule systematic investments edit overwrite | | | | | | | | 191 | |







| Continue | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| Section Sect | |
| Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Sect | |
| Columns | |
| Columns | |
| Columns | |
| Contract | |
| Interview Inte | , |
| Type | |
| common cross entiverse information | |
| View Common cross surviverse information | |
| Interest (see interest incompliance) | |
| detat (pice aferts) | |
| Identic per airst | |
| print affects report print aff | |
| adest report virial virial stock contails stock contails deptay stock rank deptay virial stock rank deptay stock rank de | |
| part | |
| View | |
| | |
| Customize Cust | |
| view | |
| | |
| display | |
| View Investigations Investigation Inve | |
| show test of dura rification | |
| Interest of discretalization | |
| level of diversification | |
| Portfolio level asilent a users should be able to assign alerts to familiar bey are monitoring 0 | |
| Porticio level airet a - users should be able to assign alert st certifie porticios 5 5 1 262.5 | |
| Potitioi level aintit a - users should be able to assign alert st certifie porticilies S S 1 262.5 | |
| Setup facquency | |
| Setup Frequency | |
| view e-mail 5 5 3 287.5 NTH 1 17 | |
| e-mail | |
| pagers 3 3 3 2 175 | |
| PDAs | |
| Instant messaging | |
| Fax | |
| Voice mail 3 3 3 2 175 | |
| Web archive 5 5 1 262.5 | |
| Holding level afters - users should be able to assign after sto holdings within portfolios 5 5 1 262.5 | |
| Holding level stients - users should be able to assign alert sto holdings within particlos Setup frequency 0 0 19 View 0 0 19 View 0 0 17 PDAs 3 3 287.5 NTH 1 17 PDAs 3 3 2 2 175 Instant messaging 3 3 2 2 175 Vetce mail 3 3 3 2 2 175 Vetce mail 3 3 3 2 2 175 Rax 3 3 3 2 2 175 Vetce mail 3 3 3 2 2 175 Vetce mail 3 3 3 2 2 175 Vetce mail 3 3 3 2 2 175 Vetce mail 3 3 3 2 2 175 Vetce mail 3 3 3 2 2 175 Vetce mail 3 3 3 2 2 175 Vetce mail 3 3 3 2 2 175 Vetce mail 3 3 3 2 2 175 Vetce mail 3 3 3 2 2 175 Vetce mail 3 3 3 2 2 175 Vetce mail 3 3 3 2 2 175 Vetce mail 3 3 3 3 2 2 175 Vetce mail 3 3 3 3 2 2 175 Vetce mail 3 3 3 3 2 2 175 Vetce mail 3 3 3 3 2 2 175 Vetce mail 3 3 3 3 2 2 175 Vetce mail 3 3 3 3 2 2 175 Vetce mail 3 3 3 3 2 2 175 Vetce mail 3 3 3 3 2 2 175 Vetce mail 3 3 3 3 2 2 175 Vetce mail 3 3 3 3 2 2 175 Vetce mail 3 3 3 3 2 2 175 Vetce mail 3 3 3 3 2 2 175 Vetce mail 3 3 3 3 2 2 175 Vetce mail 3 3 3 3 2 2 175 Vetce mail 3 3 3 3 2 2 175 Vetce mail 3 3 3 3 2 2 175 Vetce mail 3 3 3 3 2 2 175 Vetce mail 3 3 3 3 2 2 175 Vetce mail 3 3 3 3 2 2 175 Vetce mail 3 3 3 3 2 2 175 Vetce mail 3 3 3 3 2 2 175 Vetce mail 3 3 3 3 2 2 175 Vetce mail 3 3 3 3 2 2 175 Vetce mail 3 3 3 3 2 2 175 Vetce mail 3 3 3 3 2 2 175 Vetce mail 3 3 3 3 2 2 175 Vetce mail 3 3 3 3 2 2 175 Vetce mail 3 3 3 3 2 2 175 Vetce mail 3 3 3 3 2 2 175 Vetce mail 3 3 3 3 2 2 175 Vetce mail 3 3 3 3 2 2 175 Vetce mail 3 3 3 3 2 2 175 Vetce mail 3 3 3 3 2 2 175 Vetce mail 3 3 3 3 2 2 175 Vetce mail 3 3 3 3 2 2 175 Vetce mail 3 3 3 3 2 2 175 Vetce mail 3 3 3 3 2 2 175 Vetce mail 3 3 3 3 2 2 175 Vetce mail 3 3 3 3 2 2 175 Vetce mail 3 3 3 3 2 2 175 Vetce mail 3 3 3 3 2 2 175 Vetce mail | |
| Setup frequency | |
| View | /S. |
| View | |
| e-mail 5 5 3 287.5 NTH 17 pagers 3 3 3 22 175 PDAs 3 3 3 22 175 Instant messaging 3 3 3 22 175 Fax 3 3 3 22 175 Voice mail 3 3 3 22 175 Web 5 5 1 262.5 aggregate - users should be able to aggregate port folios aggregate control of the contro | |
| pagers 3 3 2 175 PDAs 3 3 3 2 175 Instant messaging 3 3 3 2 175 Fax 3 3 3 2 175 Voice mail 3 3 3 2 175 Web 5 5 1 262.5 arctive aggregate port folios aggregate of port folio | |
| PDAs 3 3 2 175 Instant messaging 3 3 3 2 175 Fatx 3 3 3 2 175 Voice mail 3 3 3 2 175 Web 5 5 1 262.5 aggregate - users should be able to aggregate portfolios aggregate d port folio | |
| Instant messaging 3 3 3 2 175 Fax 3 3 3 2 175 Voice mail 3 3 3 2 175 Web 5 5 1 262.5 aggregate - users should be able to aggregate portfolios aggregate ortifolio aggregate dortifolio | |
| Fax 3 3 2 175 Voice mail 3 3 3 2 175 Web 5 5 1 262.5 anchive aggregate port folios aggregate port folios | |
| Voice mail 3 3 3 2 175 | |
| Web 5 5 1 262.5 archive 0 aggregate - users should be able to aggregate port folios aggregate d port folio | |
| archive 0 aggregate - users should be able to aggregate portions aggregated portion | |
| aggregate - users should be able to aggregate portfolios aggregated porticilio | |
| aggregate - users should be able to aggregate portfolios aggregated porticilio | |
| aggregated porticitio | |
| 30 -0 1 | |
| Yiew Yiew | , |
| save | |
| assign benchmarks - users should be able to assign benchmarks to investments they are monitoring | |
| benchmarks | |
| compare - users should be able to compare investments against benchmarks | |
| against benchmarks | |

| Investment Resea | rch Subdor | nain | | | | | | | | | | | | |
|-----------------------------------------|-------------------------------------|----------------|--------------------|----------------|----------------|------|---|------|---|-------|-------|------|-----------|--------------------------------------------------------------------|
| | | assign | | | | | | | | | | | | |
| *************************************** | | | preselected ber | ochmarks | | | | | | | | | | |
| | | create | 1 | | | | | | | | | | 1 | |
| | | | custom benchm | sark. | | | | | | | | | 1 | |
| *************************************** | | | | combine | | | | | | | | | | |
| | | - | | | indexes | | | | | | | | | |
| | | | | | a/erages | | | | | | | | | |
| | before/after | | | | | | | | | | MH | l . | 204 | |
| create | | | | | | | | | | | | | 187 | |
| | portfolio name: multiple portfol | s - users sho | uid be able to na | me port fallos | š | | | | | | | | | |
| | multiple portfol | os - users si | hould be able to | create multip | le port falias | | | | | | | | | |
| expor | t - users should be ab | le to export i | information into n | nutiple form | ats | 5 | 5 | | 3 | 287.5 | | | | Define types of exporting & revisit (Non-simple exports graphs) |
| | | Ţ | Text Format | | | | | | | 0 | MH | É | 11 | |
| | | | Database Form | at (3 max) | | | | | | 0 | MH | l . | 12 | |
| | | | Excel Format | | | | | | | 0 | MH | li . | 13 | |
| | | | Other Formats | | | | | | | 0 | NTH | 10 | 14 | |
| nation . | users should be able | to print infor | recotion. | | | Е. | | | - | 2126 | 3.414 | 8 | (Advisor) | |

The Understand domain includes features that help users analyze the information they have gathered so that it becomes relevant to their work.

Supporting features

Competitive analysis and peer analysis

The ability to compare the same data points across investments is essential to understanding relative market position of offerings and investments. The site would offer tools that allow users to compare data points across investments within the same universe. Methods for comparing data include

- Creating charts/graphs (reference Communicate domain)
- Performing data calculations
- Customizing the time frames the analysis covers

Exporting information (reference Gather Domain)

Feature opportunities

The following features could be added to MorningstarInstitutional.com in the future.

Comparing Morningstar data with other data sources

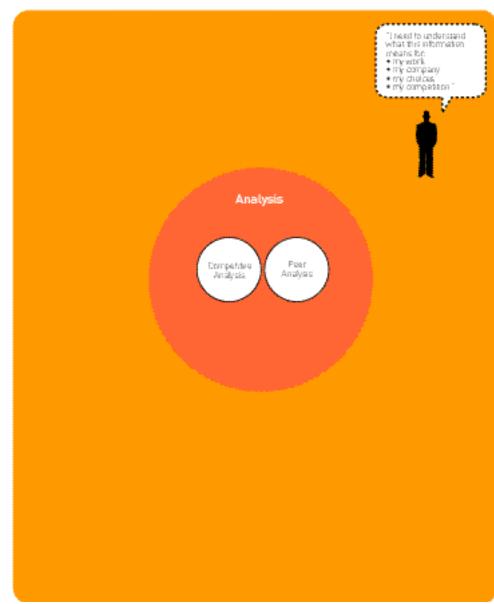
Institutional users look to more than one source for their information. They often compare the data they have with many third party data sources, not just Morningstar.

A significant amount of institutional users time is spent standardizing this information so that they can begin analysis. An offering that expedite this process would have high user value.

Attribution analysis

Holdings-based attribution will provide a unique tool for institutions trying to better understand what drives their performance and their relative performance.







The following charts provide additional detail on the site features. Each line item has been evaluated from the different points of view of the Morningstar business, the user the brand, and the marketplace (competitive value).

Each feature has been ranked on a scale from 5 to 1

- A rating of 5 indicates that the feature s a must have
- A rating of 1 indicates that the feature s a nice to have

The numbers beneath the column headings indicate the relative weighting of each point of view.

| Action | Subobject | Action | Subabiast | Action | Subabiast | Action | Bus | User | Toch | Brand | Mkt | Total | Disc Priority | Disc Phase | Disc # | Notes |
|-----------------------|------------------|-----------------------|----------------------------------|-------------------|-------------------|-----------------------------------------------|-----|--------------------------------------------------|--------------|--------------------------------------------------|---------------|-----------------------------------------|------------------|---------------|-----------|----------------------|
| ACUON | Sanonject | ACUON | Subobject | ACCOR | Supobject | AL CIVII | 25 | 25 | 25 | 13 | 13 | 100 | · morney | ridae | DISK W | .10123 |
| / | -li | | | | | | رع | 2.5 | 20 | | | 100 | | 1 | | |
| | | | | ise seve | rat mechai | isms to perform | | | | | | | | | | |
| sis (cha | rts, report | s, bench | marks) | | | | | | | | | | | | 14.00 | |
| compare wi | thin same onive | rse - psers s | anould be able to | compare d | ta elements of | investments within the same universe | 6 | -5 | | | 5 | 312.5 | мн | | (Advisor) | |
| | | - manifold of | The part and the second | - company to | | The second section is the second being stable | | - | 1 | | | 512.0 | | † | 190 | |
| | | | | | | ts of investments across universes | 3 | 4 | İ | | 1 | 187.5 | МН | I | (Advisor) | 7 |
| | users should be | | orm calculations | on investme | nt data | | | | - | | | 0 | | | | actual calculations |
| | calculation tbd | | ļ | | | | | ļ <u>-</u> - | | | | 9496 | | | | For all calculations |
| report fulleum | s - users should | save be able to vi | iew and print the | Idlawing D | rincipia renorte | | - D | 2 - | | | D | 01 Z.D | | | | CO ME CHICARRICES |
| - signer of the State | allocation view | - users shou | ald be able to ac | cess an alto | ation view simil | arto Principia | | 1 | † | *************************************** | ************* | | MH | 1 | 225 | 1 |
| | | customize | | | | | | | | | | | | | | |
| | | | layout | | | | | | | | | | | | | |
| | | | | add | | | | - | 1 | | | | | | | |
| | | | | | data columns | | | | | | | | | - | | |
| | | | | remove | data columns | - | | † | | | | *************************************** | | + | | |
| | | | | rank/sort | Same Countries | | | † | 1 | ~~~ | *********** | | | + | - | |
| | | | | sare | | | | | 1 | | | | | | | |
| | | view | | | | | | | | | | | | | | |
| | | | dolarvalue | | | | | ļ | | | | | | | | |
| | | | # of shares | | | | | | ļ | | | | | | | |
| | | | % allocations detailed fund's | tock reneste | | | | - | | | | | | + | | |
| | | | subasset class | | † | | | 1 | t — | | | | MH | 1 | 162 | |
| | Principia | | | | | e to access a scheduled port fdio view simila | to | | | | | | **** | | H305 | |
| | snapshot view | | ld be able to ac | bess a snaps | that view similar | to Principia | | | | | | | MH | | 226 | |
| | | view | benchmark oo | mparison | | - | | | | | | | | + | | + |
| | | | composition | | | | | 1 | 1 | <u> </u> | | | | | | |
| | | | style and funda | amert als | | | | L | | | | | | | | |
| | | | stock classifica | | | | | | | | | | | | | |
| | | | fixed-income st | | | | | | | | | | | | | |
| | database view | . steam obot | performance in | | age view storilar | to Process | | | | | | | МИ | + | 227 | |
| | CHRISTIANE A KOM | | users should be | | | | | | 1 | | | | | + | | |
| | | | layout | 10 000 | 1 | | | | 1 | | | | | † | | |
| | | | | add | 1 | | | | | | | | | 1 | | |
| | | | | | columns | | | | | | | | | | | |
| | | | | delete | anhumr - | | | - | - | | | | | | | |
| | | | ļ | enniglood | columns | | | | | | | | | - | | |
| | | | | rank/sort sa/e | | | - | | 1 | | | | - | | | |
| | | graph | | Jap C | | 1 | | | | | | | | + | | |
| | | view | | | | | | | 1 | | | | | | | |
| | | | common cross | universe in | ormation | | | | | | | | | | | |
| | | | | sa/e | | | | | | | | | | | | |
| | alerts (see aler | • | nould be able to | access an a | rerts view simila | rto Principia | | 1 | 1 | | | | | | | |
| | | generate | alerts report | - | | | | 1 | - | | | | | + | | |
| | | print | aests report | - | | - | | | | | | | | + | | |
| | | view | | - | | | | t | | | | *************************************** | | + | | |
| | | | | | | | | | | | | | | | | |
| | stock overlap - | users should | d be able to accu | ess a stock o | vertap view sim | ilar to Principia | | ! | t | | | | MH | 1 | 228 | |

| Subdomain | | | | | | | | | | | | | |
|-----------------------------------------|---------------------|-----------------------|---------------------|-------------------------------|-----------------------------------------------|-----|----------------|--------------------------------------------------|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|---------------------------------------|----------------------------------------------|
| | | | | | | | | | | | | | |
| | | | stock rank | | | | 1 | | | | | | |
| | | | display | | | | I | | | | | | |
| | | view | | | | | | | | | | | |
| | | | underlying stoc | k holdings ranked by % net a | ssets | | | | | | | | |
| | | show | | | | | | | | | | | |
| | | | level of diversific | cation | | | | | | | | | |
| graph - th | e following graphs | s should be av | vailable for Morn | ingstar research data | | | | | | 0 | | | Need to identify Institutional-specific grap |
| | | | | | | | | | | | | 184 | |
| | Growth of \$10 | | | | | | L | | | 0 | MH | I (Advisor) | |
| | | Edit (change | e parameters not | t presentation) | | 4 | 4 | | | 262. | 5 | | |
| | | | | | | | | | | | | | |
| | | Generate sir | nale investment | graphs - users should be abl | e to graph single investments in one graph | - 6 | 5 | 1 | - 5 | 31.2. | 5 | | |
| | | | | | | | _ | | | 57.4. | | | |
| | | Generate mi | ultiple investmer | nt graphs - users should be a | ble to graph multiple investments in a single | | 1 | l | - 1 | | 1 | | |
| | | graph | | | | - 5 | - 5 | i | 5 | 312. | 5 | | |
| | | Modify (cosm | metic) | | | 4 | 4 | | 1 | 212. | 5 | | |
| | | | om-in, resize) | | | - 5 | - 5 | | 5 | | 5 | | |
| | | Save | | | | - 5 | 5 | | 5 | 312. | 5 | | |
| | | Retrieve | | | | - 5 | 5 | | | 31.2. | 5 | | |
| | | Copy to dipb | board | | | | 5 | | | 31.2. | 5 | | |
| | | Print | | | | - 5 | - 5 | | 5 | 312. | 5 | | |
| | | Export | | | | - 5 | 5 | | 5 | 31.2. | 5 | | |
| | | | 1 | | | | 1 | | | | | 184 | |
| | Total Annual R | et graph | | | | | | | | 0 | MH | I (Advisor) | |
| | | | e parameters not | | | 4 | 4 | | 5 | 262. | 5 | | |
| | | | ngle investment | | | - 5 | - 5 | | 5 | 312. | 5 | | |
| | | Generate mu | ultiple investmen | nt graphs | | - 5 | 5 | | | 31.2. | 5 | | |
| | | Modify (cosm | | | | 4 | 4 | | 1 | 212. | 5 | | |
| | | Magnify (zoc | om-in, resize) | | | | - 5 | <u> </u> | | 31.2. | 5 | | |
| | | Save | | | | - 5 | - 5 | | | | 5 | | |
| | | Retrieve | | | | - 6 | - 5 | | 5 | 312. | 5 | | |
| | | Copy to dipb | board | | | - 5 | - 5 | | 5 | 312. | 5 | | |
| | | Print | | | | - 5 | - 5 | 1 | 5 | 312. | 5 | | |
| | | Export | | 1 | | | - 5 | | | 312. | 5 | | |
| | | | | | | 1 | j | | - 1 | | | 184 | |
| | Rolling Per Ret | graph | | | | | | | | 0 | MH | I (Advisor) | |
| | | | e parameters not | | | 4 | 4 | | | PARTY | 5 | | |
| | | Generate sin | ngle investment | graphs | | 5 | 5 | | 5 | | 5 | | |
| | | | ultiple investmen | it grapins | | | 5 | _ | 5 | | <u> </u> | | |
| | | Modify (cosm | | | | | 4 | — | 1 | 212. | 2 | | |
| | | | om-in, resize) | | | | 5 | 1 | 5 | | 9 | | |
| | | Save | | | | - b | 5 | | 5 | | 0 | | |
| | | Retrieve | | | | | 5 | | 5 | NAMES OF THE PARTY | name | | |
| | | Copy to dipb Print | JOSEU | | | | 1 5 | | 5 | ****** | 550V | | |
| | | Export | , | | | | 5 | | 5 | Contract Con | | | |
| | | Export | | | | - 0 | - 5 | | - 5 | 31.2. | 3 | 184 | |
| | Risk/Reward S | catternist | 1 | | | 1 | 1 | | | 0 | MH | (Advisor) | |
| *************************************** | Action Learning Co. | | e parameters not | (nesentation) | | 4 | 4 | | 5 | | 5 | · · · · · · · · · · · · · · · · · · · | |
| *************************************** | | | ngle investment | | | 5 | 5 | | 5 | | 5 | | |
| | | Generale ou | utiple investmen | of craphs | | - F | 5 | | 5 | | 5 | | |
| | | Modify (cosm | metic) | - 9-1-12 | | | 4 | | 1 | | | | - |
| *************************************** | | | om-in, resize) | | | | 5 | | 5 | | | | |
| | | Save | | | | | 5 | | 5 | | NAME OF TAXABLE PARTY. | | |
| | | Retrieve | | | | - 5 | 5 | | 5 | | | | + |
| | | Copyto dipb | board | | | - 5 | 5 | | 6 | | | | |
| | + | Print | ment id | | | 5 | 5 | | 5 | | 5 | | + |
| | _ | Export | | | | | 5 | | | ~~~~ | - | | 1 |
| | + | Laplas | | | | | | | | | in the second | 184 | |
| | Growth of 10K | Stacked Bar (| Chart | | | 1 | 1 | | | 0 | MH | I (Advisor) | |
| | Committee of the | Edit (chance | e parameters not | presentation) | | | 4 | | 5 | ****** | | 7.3.337 | |
| | | | | | | | | | | | | | |

| Analysis Subdomain | | | | | | | | | | | |
|-----------------------------------------|-------------------------------------------|----------|-----|---|-----------------------------------------|-----|-------|----|---|------------------|---|
| ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | | | | | | | | | | | |
| | Generate multiple investment graphs | - 5 | 5 | | | 5 | 312.5 | | | | |
| | Modify (cosmetic) | 4 | 4 | | | 1 | 212.5 | | | † | |
| | Magnify (zoom-in, resize) | 5 | 5 | | *************************************** | 5 | 312.5 | | | | |
| | Save | 5 | 5 | İ | | 5 | 312.5 | | | | |
| | Retrieve | - 5 | 5 | | | 5 | 312.5 | | | | |
| | Copy to dipboard | - 5 | 5 | | | 5 | 312.5 | | | | |
| | Print | 5 | 5 | 1 | | 5 | 312.5 | | | | |
| | Export | - 6 | 5 | l | | 5 | 312.5 | | - | | |
| Correlation Ma | itrix. | 1 | | | | | 0 | MH | 2 | 184 (Advisor) | |
| | Edit (change parameters not presentation) | 4 | 4 | | | 6 | 262.5 | | | | |
| | Generate single investment graphs | 5 | 5 | | | 5 | 312.5 | | | | |
| | Generate multiple investment graphs | 5 | 5 | | | 5 | 312.5 | | | | |
| | Modify (cosmetic) | 4 | 4 | | | 1 | 212.5 | | 1 | | |
| | Magnify (zoom-in, resize) | - 5 | 5 | | | 5 | 312.5 | | | | |
| | Save | - 5 | 5 | | | 5 | 312.5 | | | | |
| | Retrieve | - 6 | 5 | l | | - 5 | 312.5 | | | | |
| | Copy to dipboard | - 5 | 5 | | | 5 | 312.5 | | | | |
| | Print | 5 | 5 | | | 5 | 312.5 | | | | |
| | Export | 5 | 5 | | | 5 | 312.5 | | | | |
| Standard Device | | | | | | | 0 | мн | 1 | 186 (Advisor) | |
| | Edit (change parameters not presentation) | 4 | 4 | | | 5 | 262.5 | | | | |
| | Generate single investment graphs | - 5 | - 5 | | | 5 | 312.5 | | | | |
| | Generate multiple investment graphs | - 5 | 5 | | | 5 | 312.5 | | | | |
| | Modify (cosmet ic) | 4 | 4 | | ****** | 1 | 212.5 | | | | |
| | Magnify (zoom-in, resize) | 5 | 5 | | | 5 | 312.5 | | | | |
| | Save | 5 | - 5 | | | 5 | 312.5 | | ļ | | |
| | Retrieve | 5 | - 5 | 1 | | 5 | 312.5 | | | | |
| | Copy to dipboard | 5 | 5 | ļ | | 5 | 312.5 | | | | |
| | Print | <u> </u> | | | | 5 | 312.5 | | | | |
| | Export | | | | | 5 | 312.5 | | | 184 | |
| Premium/Disc | | | | | | | 0 | мн | ı | (Advisor) | |
| | Edit (change parameters not presentation) | 4 | 4 | | | 5 | 262.5 | | | | |
| | Generate single investment graphs | 5 | 5 | | | 5 | 312.5 | | | | |
| | Generate multiple investment graphs | - 5 | - 5 | | \vdash | 5 | 312.5 | | | | |
| | Modify (cosmetic) | 4 | 4 | ļ | | 1 | 212.5 | | | | |
| | Magnify (zoom-in, resize) | 5 | 5 | ļ | | - 5 | 312.5 | | | | |
| | Save | 5 | | | | 5 | 212.5 | | | | |
| | Retrieve | - 5 | | | | | 312.5 | | | | |
| | Copy to dipboard Print | D . | 5 | 1 | | 5 | 312.5 | | | | 1 |
| | Print Export | D . | 5 | - | | 5 | 312.5 | | | | |
| | i EXDUS | D 1 | D. | 1 | | D | 312.5 | | | 1 | |

The features in the Communicate domain affect the management, publication, and distribution of information, particularly, data and data analysis.

There are two sub-domains within the Communicate domain:

- Recommendation presentation
- Practice management

Communication within institutions occurs along many paths, including:

- Among investment managers
- From investment managers to the marketing communications department
- From investment managers to fiduciaries
- From marketing communications to the public

Recommendation presentation supporting features

For the most part, institutions use their own presentation tools (PowerPoint, QuarkExpress). Since institutional audiences must communicate their information in a way that enables effective, informed decision-making, Morningstar data should be easily customized to the needs of the audience.

Canned Reports

A set of unmodifiable informational layout views would be available.

Customized Reports

A set of modifiable informational layout views would be available.

Charts/Graphs

Visual representations of data, such as graphs and tables, are useful, especially if they can be exported to other programs.

Exporting information (reference Gather Domain)

The ability to export information so that it can be incorporated into institutions' products.

Practice management supporting features

Practice management for institutions relates to the management and distribution of information.

Information management

Users would have a central repository that contains information that they have saved.

Saving information

Users would be able to save information into their own personal area on the site. The following types of information can be saved

- Graphs and charts
- Search criteria
- Customized layouts
- Alerts and notifications preferences
- Investments that are being tracked
- Reports

Information sharing

Institutional users would share information with many other groups. Information can be shared

Information sharing within single institutions

Within single institutions, users would have the ability to publish information to all other members of their institution who have access to the site.

Information sharing with advisors

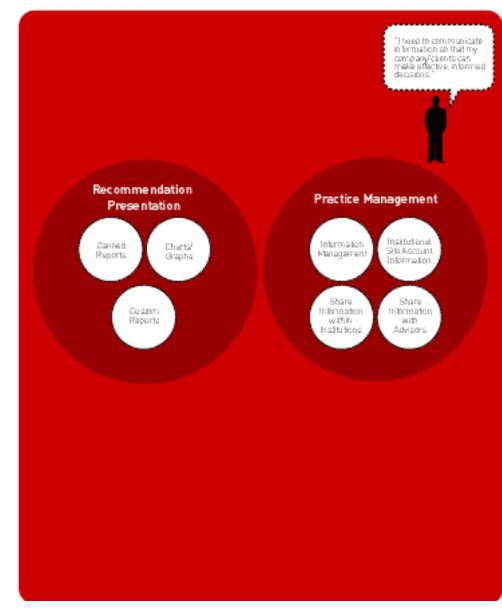
Institutional users would have the ability to publish information to all uses of MorningstarAdvisor.com. Each institution should probably have a limited number of people with this capability.

User profile/account management

There are two types of accounts available for institutional users

- The institution firm account/profile
- The individual institutional user account/profile







The institution account/profile

The institution account is essentially a super user account. It should contain the individual user names within the account; their account information; the terms and conditions of the sale.

The individual institutional user account/profile

The individual institutional user account/profile contains

- Saved information
- User preferences

The following charts provide additional detail on the site features. Each line item has been evaluated from the different points of view of the Morningstar business, the user the brand, and the marketplace (competitive value).

Each feature has been ranked on a scale from 5 to 1

- A rating of 5 indicates that the feature s a must have
- A rating of 1 indicates that the feature s a nice to have

The numbers beneath the column headings indicate the relative weighting of each point of view.

| ed reports | Action report/view | Subobject | Action | Subobject | Action | | | | | | | | | | | | |
|------------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|----|--------------------------------------------------|--------------------------------------------------|--------------------------------------------------|-----------------------------------------|---------------------------------------|---------------|---------|-------|
| d reports | | | ACUON | Subobject | ACUON | Cubabback | Action | | | T | | Min | , | Disc Priority | Disc Phase | Disc # | Notes |
| d reports | report/viev | | İ | | | Subobject | ACTION | | | | | | | Priority | riidse | DISC 17 | NVLES |
| a reports | report/viev | | | | 1 | | | 20 | ∠0 | 20 | 13 | 13 | 100 | | | . L | |
| | repon/viev | and the second s | h | to a superior de la constante | following D | | Ţ. | | | | | | | | | | ·, |
| | | | | | | rincipia reports cation view simil | | | | | | | | MH | - 18 | 225 | |
| | | | customize | | COST MAY SHOW | CORNER TO THE CORNER OF THE | The state of the s | | | † | | | | | | | |
| | | | | layout | | | | | | | | | | | | | |
| | | | | | add | data columns | | | | | | | | | ļ | | |
| | | | | | remove | Gat a cournes | | | | | | | | | | | |
| | | | | | The state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the s | data columns | | | | † | | | | | † | | · |
| | | | | | rank/sort | | | | | | | | | | | | |
| | | | | | sare | | | | | | | | | | | | |
| | | + | view | dollarvalue | + | | + | | | - | | | | | - | | |
| | | + | | # of shares | + | | <u> </u> | | | | | | | | · | + | |
| | | 1 | | % allocations | İ | | | | | | | | | | | | |
| | | | | detailed fund/s | | | | | | | | | | · · · · · · · · · · · · · · · · · · · | | 788 | |
| | | | | subasset class | es | 1 | | | | | | | | MH | ļ | 162 | |
| | | Principia | | | | | e to access a scheduled port fdio view | w similar to | | | | | | | | | |
| | | snapshot view | | ild be able to acc | bess a snap | shot view similar | to Principia | | | | | | | MH | | 226 | |
| | | | view | benchmark cor | mparison | | | | | | | | | | | - | |
| | | - | | composition | | | <u> </u> | | | 1 | | | | | | | |
| | | | | style and funda | | | | | | | | | | | | | |
| | | | | stock classifica | | | | | | ļ | | | | | | | |
| | | + | <u> </u> | fixed-income st performance in | | | - | | | | | | | | - | | - |
| | | database view | - users shou | | | base view similar | to Principia | | | 1 | | | | MH | 1 | 227 | |
| | | | customize - | | e able to cus | stomize the data | base view | | | | | | *************************************** | | | | |
| | | | | layout | - 44 | | | | | | | | | | | | |
| | | | | | add | columns | | | | | | | | | · | + | |
| | | | | | delete | COMMINS | 1 | | | | | *********** | *************************************** | | | | |
| | | 1 | | 1 | | columns | | | | *************************************** | *************************************** | ************ | *************************************** | | | | |
| | | | | ļ | rank/sort | | | | | | | | | | | | |
| | | - | graph | + | sare | | | | | - | | | | | - | | |
| | | + | view | + | + | - | + | | | | | | | | - | + | |
| | | 1 | <u> </u> | common cross | -universe in | formation | † | | | | | | | | | | |
| | | | | | sare | 1 | | | | | | | | | | | |
| | | aterts (see aler | | | | alerts view simila | rto Principia | | | - | | | | | | | |
| | | + | generate | alerts report | | - | | | | | | | | | | + | - |
| | | | print | - Secretary | | | | | | | | | | | | | |
| | | | view | | | | | | | | | | | | | | |
| | | stock overlap - | users should | d be able to acco | ess a stock o | ovedap view sim | ilar to Principia | | | | | | | MH | 1 | 228 | |
| | | - | customize - | | able to oust | omize the stock | overnap view | | | - | | | | | | | |
| | | + | | view stock nank | + | | - | | | - | | | | | - | | - |
| | | + | | display | + | | + | | | 1 | | | | | | + | |
| | | † | view | T | † | - | † | | | | | | | | - | + | |
| | | 1 | <u> </u> | underlying stor | ck holdings r | ranked by % net | assets | | | | | | | | | 1 | |

| ıstomized report | ts - a certain numbe | r of customizable reports will be available | | | | | | | | | |
|------------------|----------------------------|------------------------------------------------------------------------------------------------------|------------|--------|---|----------|----------------|------|---|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | | | | | | | | | |
| narts/graphs | | | | | | | | | | _ | The state of the s |
| | graph - the following grap | hs should be available for Morningstar research data | | | | | 0 | ··· | | 184 | Need to identify Institutional-specific graph |
| | Growth of \$1 | 0K graph | 1 | | | | 0 | мн | B | (Advisor) | |
| | | Edit (change parameters not presentation) | - 4 | 4 | | 5 | 262.5 | | | | |
| | | | 1 | | | | | 1 | | | |
| | | Generate single investment graphs - users should be able to graph single investments in one graph | 5 | - 5 | | | 312.5 | | | | |
| | | Generate multiple investment graphs - users should be able to graph multiple investments in a single | 1 | | | | | 1 | | | |
| | | graph | - 5 | - 5 | | 5 | 312.5 | | | | |
| | | Modify (cosmetic) | 4 | 4 | | 1 | 212.5 | | | | |
| | | Magnify (zoom-in, resize) Save | 5 | 5 | | 5 5 | 312.5 312.5 | - | - | | |
| | | Retrieve | 5 | 5 | | 5 | 312.5 | | | + | |
| | | Copy to dipboard | 5 | 5 | | 5 | 312.5 | ~ | | | |
| | | Print | - 5 | 5 | | 5 | 312.5 | | | | |
| | | Expat | 5 | 5 | | 5 | 312.5 | | | 184 | |
| | Total Annua | Ret graph | 1 | | | | 0 | MH | B | (Advisor) | |
| | | Edit (change parameters not presentation) | 4 | 4 | | 5 | | | | | |
| | | Generate single investment graphs | 5 | 5 | | 5 | | | | | |
| | | Generate multiple investment graphs | - 5 - 4 | 5 4 | | 5 | 312.5 212.5 | | | | |
| | | Modify (cosmetic) Magnify (zoom-in, resize) | 5 | 5 | _ | 5 | 312.5 | | | | |
| | | Save | - 5 | - 5 | | 5 | 312.5 | | | - | |
| | | Retrieve | - 5 | 5 | | - 5 | 312.5 | | | | |
| | | Copy to dipboard | 5 | 5 | | | 312.5 | | | | |
| | | Print Export | 5 | 5 | | <u>5</u> | 312.5 312.5 | w | | | |
| | | L. Dat | | | | | 012.0 | - | - | 184 | |
| | Rolling Per F | Ref graph | | | | | 0 | MH | 5 | (Advisor) | |
| | | Edit (change parameters not presentation) Generate single investment graphs | 5 | 5 | - | 5 | 262.5 312.5 | | | | |
| | | Generate multiple investment graphs | 5 | 5 | | 5 | 312.5 | | | | |
| | | Modify (cosmetic) | 4 | 4 | | 1 | 212.5 | | | | |
| | | Magnify (zoom-in, resize) | 5 | 5 | | 5 | 312.5 | | | 1 | |
| | | Save Retrieve | 5 | 5 | | 5 | | | | | |
| | | Copyto dipboard | 5 | 5 | | 5 | 312.5 312.5 | - | | | - |
| | | Print | 5 | 5 | | 5 | 312.5 | 1 | | | |
| | | Expart | 5 | 5 | | 5 | 312.5 | | | | |
| | Risk/Reward | i Seedlandel | | | | | 0 | мн | | (Advisor) | |
| | Kiso Keware | Edit (change parameters not presentation) | 4 | 4 | | 5 | 262.5 | our. | | (mersury) | - |
| | | Generate single investment graphs | 5 | 5 | | 5 | | w. | | | |
| | | Generate multiple investment graphs | 5 | 5 | | 5 | 312.5 | | | | |
| | | Modify (cosmetic) | 4 | 4 | | 1 | 212.5 | | | | |
| | | Magnify (zoom-in, resize) Save | 5 | 5 | | 5 5 | 312.5 312.5 | ~ | | | |
| | | Retrieve | 5 | 5 | | 5 | | | | + | 1 |
| | | Copyto diplocard | 5 | 5 | | 5 | 312.5 | | | | |
| | | Print | 5 | 5 | | 5 | 312.5 | | | | |
| | | Expat | 5 | 5 | | 5 | 312.5 | | | 184 | |
| | Growth of 10 | K Stacked Bar Chart | 1 | | | | 0 | MH | B | (Advisor) | |
| | | Edit (change parameters not presentation) | 4 | 4 | | 5 | 262.5 | | | 1 | |
| | | Generate single investment graphs | 5 | 5 | | 5 | 312.5 | | | | |
| | | Generate multiple investment graphs | 5 | 5 | | 5 | 312.5 | | | | |

| Recommendation Presentation S | Subdomain | | | | | | | | | | | |
|-------------------------------|------------------------------------|----------|-----|-----|-----------------------------------------|-----------------------------------------|-------|-----------------|----|----------|-----------|---|
| | | | | | | | | | | | | |
| Models | y (cosmetic) | | 4 | 4 | | | 1 | 212.5 | | 1 | | |
| | fy (zoom-in, resize) | | 5 | 5 | | | 5 | 312.5 | | | | |
| Save | | | - 5 | - 5 | | | 5 | 312.5 | | | † | |
| Rene | | | 5 | 5 | | | 5 | 312.5 | | | + | |
| | o dipboard | | 5 | 5 | | | 5 | 312.5 | | <u> </u> | + | 1 |
| Print | | | 5 | 5 | | | 5 | 312.5 | | | + | |
| Export | | | 5 | 5 | *************************************** | | 5 | 312.5 | | | † | |
| | | | | | *************************************** | | ***** | ananananananana | | | 184 | |
| Correlation Matrix | | | | | | | | 0 | MH | 5 | (Advisor) | |
| | hange parameters not presentation) | | 4 | 4 | | ~~~~~~ | 5 | 262.5 | | † | + | |
| | ate single investment graphs | | - 5 | 5 | | | 5 | 312.5 | | | † | |
| | ate multiple investment graphs | <u> </u> | - 5 | - 5 | | | 5 | 312.5 | | | † | |
| | y (cosmetic) | <u> </u> | 4 | 4 | | | 1 | 212.5 | | | † | |
| | fy (zoom-in, resize) | <u> </u> | 5 | 5 | | | 5 | 312.5 | | | † | |
| Save | | | 5 | 5 | ************* | ************ | 5 | 312.5 | | | † | |
| Rene | | | 5 | - 5 | *************************************** | | 5 | 312.5 | | | † | |
| Copyt | o dipboard | | - 5 | - 5 | | | 5 | 312.5 | | | | |
| Print | | | - 5 | - 5 | | | 5 | 312.5 | | | | |
| Export | | | - 5 | 5 | | | 5 | 312.5 | | | | |
| | | | | | | | | | | | 184 | |
| Standard Deviation Gr | raph | | | | | | | 0 | MH | E | (Advisor) | |
| Edit (d | hange parameters not presentation) | | - 4 | 4 | | | 5 | 262.5 | | | | |
| Gener | ate single investment graphs | | 5 | 5 | | ******************************* | 5 | 312.5 | | | | |
| | ate multiple investment graphs | | 5 | 5 | | | 5 | 312.5 | | | | |
| Modify | y (cosmetic) | | 4 | 4 | | *************************************** | 1 | 212.5 | | | | |
| Magni | fy (zoom-in, resize) | | - 5 | 5 | | | 5 | 312.5 | | | 1 | |
| Save | | | - 5 | 5 | | | 5 | 312.5 | | | | |
| Retrie | ve | | - 5 | - 5 | | | 5 | 312.5 | | | 1 | |
| Copyt | to dipboard | | 5 | 5 | | | 5 | 312.5 | | | | |
| Print | | | 5 | 5 | | | 5 | 312.5 | | | | |
| Export | | | 5 | 5 | | | 5 | 312.5 | | | | |
| | | | | | | | | | | | 184 | |
| Premium/Discount Gra | | | | | | | | 4 | MH | l . | (Advisor) | |
| | hange parameters not presentation) | | 4 | 4 | | | 5 | 262.5 | | | | |
| Gener | ate single investment graphs | | 5 | 5 | | | 5 | 312.5 | | | | |
| | ate multiple investment graphs | | - 5 | 5 | | | 5 | 312.5 | | 1 | 1 | |
| Modify | y (cosmetic) | | 4 | 4 | | | | 212.5 | | | | |
| Magni | fy (zoom-in, resize) | | - 5 | 5 | | | 5 | 312.5 | | | | |
| Save | | | - 5 | - 5 | | | 5 | 312.5 | | | | |
| Retrie | | | - 5 | 5 | | | 5 | 312.5 | | | | |
| | o dipboard | | 5 | 5 | | | 5 | 312.5 | | | | |
| Print | | | 5 | 5 | | | 5 | 312.5 | | | | |
| Export | | | - 5 | 5 | | | 5 | 312.5 | | | | |

| Practice Manag | emen | t Subdo | main | | | | | | | | | | | | | | |
|---------------------|--------|------------------|---------------|-----------|--------|-----------|--------|-----|------|------|-------|-----|-------|------------------|---------------|--------|-------|
| | Action | Subobject | Action | Subobject | Action | Subobject | Action | Bus | User | Tech | Brand | Mkt | Total | Disc Priority | Disc Phase | Disc # | Notes |
| | | | | | | | | 25 | 25 | 25 | 13 | 13 | 100 | | | | |
| Information manager | nent | | | | | | | | | | | | | | | | |
| | save | 1 | <u> </u> | 1 | | | | | | | | | | | | 1 | |
| | | charts/graphs | | | | | | | | | | | | | | | |
| | | search criteria | | | | | | | | | L | | | | | | |
| | | customized lay | outs | | | | | | | | | | | | | | |
| | | aferts and notif | | | | | | | | | | | | | | | |
| | | alerts and notif | ication prefe | erences | | | | | | | | | | | | - | 1 |
| | | investments int | | | | | | | | | İ | | | | | | |
| | | reports | | | | 1 | | | | | | | | | 1 | 1 | |

| nstitutional user a | ccount | | | | | | | | | | | 0 | | | |
|----------------------|-----------------------------------------|-----------------------------------------|--------------|---------------------------------------|--------------|--------------|-----|-----|-----|-----------------------------------------|--------|----------------|------|--------|-----------------------------------------------|
| | log in | | | | | | 5 | - 5 | | | 5 31 | 2.5 MH | B | | |
| | manage | | | | | | | | | | | | | | |
| | | passwords | 1 | | | | | | | | | | | | |
| | | 1 | create | | | | | | | | | | | | |
| | | | edit | | | | | | | | | | | | |
| | save | | | | | | 5 | 5 | | | | 2.5 | | | |
| | view | | | | | | 5 | 5 | | | | 2.5 | | | |
| | update | | | | | | 5 | 5 | | | | 2.5 | | | demographics; not able to update billing info |
| | print | I | II | | | | - 5 | - 5 | | | 5 31 | 2.5 | | | |
| stitutional user p | rofile | | | | | | | | | | | o MH | | 6 | |
| | | 1 | T | | | | 5 | 5 | | | | 2.5 MH | | 1 | |
| | log in manage | | | | | | | | | | | 2 | | | |
| | | pasawords | † | | | | | | | | | | | | |
| | | 1 | create | | | | _ | | | | \neg | | | | |
| | | † | edit | | - | | | | | | \neg | | | | |
| | | Functionality | † | | | | | | | | | 0 MH | | 9 | |
| | | Data | 1 | · · · · · · · · · · · · · · · · · · · | | | 5 | 5 | | *************************************** | 5 31 | 2.5 MH | | 9 | |
| | save | | † | | | | 5 | 5 | | | 5 31 | 2.5 MH | 1 | 7 | |
| | view | | | | | | 5 | 5 | | | 5 31 | 2.5 | | | |
| | update print | 1 | T | | | | 5 | 5 | | | 5 31 | 2.5 | | | |
| | print | | | | | | 5 | 5 | | | 5 31 | 2.5 | | | |
| stitutional firm a | ccount | | | | | | | | | | | o MH | | 6 | |
| stitutionatining | login | T | 7 | | | | 5 | 5 | | | | 2.5 MH | | | |
| | iog in | Functionality | | | | | - 3 | | | | | 0 MH | | 9 | |
| | | Data | + | - | | | | 5 | | | 5 31 | 2.5 MH | | 9 | |
| | manage | Diam | + | | | | | | | | | 2.0 | | | |
| | Title ingr | passwords | | | | | _ | _ | - | - | - | _ | | | |
| | | P-22-1-2-2-2 | create | | | | | | | | | | | | |
| | | | edit | | | | | - | | | | | | | |
| | save | + | | | | | - 5 | 5 | | | 5 31 | 2.5 MH | 20 8 | 7 | |
| | view | | | | | | 5 | 5 | | | 5 31 | 2.5 | | | |
| | update | <u> </u> | † | | | | - 5 | - 5 | | | | 2.5 | | | |
| | print | <u> </u> | † | | | | 5 | 5 | | | | 2.5 | | | |
| nstitutional firm p | rofilo | | | | | | | | | | | o MH | | 6 | |
| istitutionat iir m p | | , | , | | | | E | - | | | | | | 0 | |
| | log in | Functionality | | | | | | 5 | | | | | | 9 | |
| | | | - | | | | 5 | 5 | | | 5 31 | 0 MH 2.5 MH | | 9 | |
| | manage | Data | | | | | - 0 | - 0 | | | 5 3 | 2.5 | | a | |
| | manage | pasawords | | | | | | - | _ | | _ | | | | |
| | *************************************** | pressure us | create | | | | - | _ | - | - | _ | | | | |
| | *************************************** | - | edit | | | | | | | | | | | | |
| | save | + | | | | | 5 | 5 | | | 5 31 | 2.5 MH | = 1 | y | |
| | view | + | + | | | | | 5 | | | 5 31 | | | | |
| | view update | | | | | h | | - 5 | | | | 2.5 | | | |
| | print | + | | | | | -5 | 5 | | | 5 31 | 2.5 | | | |
| | Tall I I | 1,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | | | | | _ | | | | | | | | |
| are information | with advis | ors | | | | | | | | | | 0 MH | | 6 | |
| | publish to | n/Krienne | 1 | | | | 3 | 3 1 | - 1 | ı | 1 16 | 2.5 MH | 1 6 | 120 (A | h i |

Business Management

Site enablers

Site enablers are those underlying relationships, systems, and processes that support or make site attractors possible. There are two parts of site enablers:

- Morningstar business management
- System/Technical architecture

Morningstar business management

Morningstar business management refers to operational and fiscal issues related to day-to-day and long-term running of MorningstarInstitutional.com. It includes the following components

- Partnerships
- Access terms and conditions
- Customer service
- Site operations
- Customer behavior monitoring

System architecture

System architecture refers to underlying code structures that support site attractors. It includes the following components

- Customization
- Content management system
- Site access
- Alert engine
- Calculation engine
- Report engine
- Data architecture
- Bulletin boards
- Chat systems

Morningstar
Business Management

Pertnerships

Adversang

User-Accouses Accounts

Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Services

Countemer Serv

Business Management

The following charts provide additional detail on the site features. Each line item has been evaluated from the different points of view of the Morningstar business, the user the brand, and the marketplace (competitive value).

Each feature has been ranked on a scale from 5 to 1

- \bullet A rating of 5 indicates that the feature s a must have
- A rating of 1 indicates that the feature s a nice to have

The numbers beneath the column headings indicate the relative weighting of each point of view.

| | | | | | | | | | | | | | | Disc | Disc | | |
|---------------|--------------------------------------------------------------------|---------------------|---------------|-------------------|-----------------|----------------|-------------------------------------------------|-----|------|-----------------------------------------|-----------------------------------------|-------|-------|----------|-------|--------|--------------------------------------|
| | Action | Subobject | Action | Subobject | Action | Subobject | Action | Bus | User | Tech | Brand | Mkt | Total | Priority | Phase | Disc # | Notes |
| | | | | | | | | 25 | 25 | | 13 | | 100 | | | | |
| tomer service | | | Å | Å | | | | | | | | | | | | | |
| | | alerts/notification | | ory alerts are se | ent to all site | users. (implem | entation as an alert is not mandatory; could be | | | | | | | | | | |
| | | M* broadcast r | | | | | | | | | | | | | | | |
| | | sto M* methodo | | | | | | | | 3 | 287.5 | | 1 | | | | |
| | M* definition alerts (style baxes) -changes to M* data definitions | | | | | | | 4 | | | 3 | 262.5 | | | 23 | | |
| | M* error alerts - Notifications of data errors/corrections | | | | | | | | | | 0 | | | 23 | | | |
| | optional al | erts/notifications | | | | | | | | | | | | | | | |
| | | Process alerts | (your data is | ready) | | | | - 5 | - 5 | | | 1 | 262.5 | | | | |
| | | | setup/subs | cribeto | | | | | | | | | 0 | | | | |
| | | | setup frequ | ency | | | | | | | | | 0 | | | 19 | |
| | | | view | | | | | | | | | | 0 | | | | |
| | provide sta | | | | | | | - 5 | - 5 | | | - 5 | 312.5 | | | | |
| | provide fee | edback mechanis | arts | | | | | 5 | 5 | | | 5 | 3125 | | | | |
| | provide call center support | | | | | | | | | | | | 0 | | | | |
| | interactive | help | | | | | | | - 5 | | | 1 | 137.5 | | 1 | | |
| | provide pr | odud demos | | | | | | | | | | | | | 1 | | |
| tnerships | | | | | | | | | | | | | | | | | |
| | import - pr | ovide mechanish | ns for 3rd pa | ties to import/u | load data to | the Web site | | | | | | | 0 | | T | | Define (separate) types of importing |
| | | Third party dat | à | 1 | 1 | | | 3 | 4 | *************************************** | *************************************** | 1 | 187.5 | NTH | H | 81 | Cobbling |
| | | Third party cert | | | | † | | | | | | | - 0 | BSKY | 181 | 82 | |

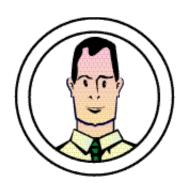
Section 7

Institutional User Scenarios

Scenarios are fictional representation of how someone might use a site, and of how the site might affect the way users perform certain tasks. for MorningstarInstitutional.com, Sapient has created three "day-in-the-life" stories: one for an investment manager at a fund company, one for a marketing manager at a brokerage firm, and one for a marketing manager at a retirement services provider







Stuart Johnson

Stuart Johnson, 32, is a performance review analyst at Prudential. He has an undergraduate degree in economics from the University of Virginia and became a chartered financial analyst in 1998.

Principia was one of the tools that Stuart relied on regularly, although it didn't have enough upto-date data. He currently gets much of his information from fund-family Web sites and Lipper LANA so he was thrilled when MorningstarInstitutional.com debuted, with much of Principia's functionality online and suited more for his needs.

Benefits

- Save search results to efficiently access the same data sets in the future.
- Export data into other applications so you can customize it.
- Set up complex search criteria so you can view exactly the information you need.
- Quickly access timely, accurate data for thousands of investments, including competitors.







Scene 1

This morning, Stuart is developing his weekly reports. Prudential portfolio managers scrutinize these reports to assess whether to reallocate investments in the funds Stuart tracks. After reviewing data from Prudential's internal data feed Stuart logs on to Prudential's account in MorningstarInstitutional.com, where he gathers information about all the funds and then focuses the data for each manager who receives it. He has already saved queries for each manager's set of funds, so the reports take far less time to research and produce than in the past. The information is up-to-date, and, therefore, managers' decisions are more sound.

Since Prudential's **board meeting** is coming up in two weeks, Stuart makes sure his reports are not only **accurate**, but can be **scanned and digested quickly**. MorningstarInstitutional.com's tools allow him to **export the data** into almost any software program he chooses.

Scene 2

Five minutes ago, via email Stuart received a request from Prudential's marketing department asking him to create a report that will **promote an investment fund** that Prudential has just developed. He visits MorningstarInstitutional.com, where he calls up numbers based on categories he **compiles specifically for this report**. Stuart pays extra attention to **creating a graph** on MorningstarInstitutional.com, because he wants to highlight the **relationship** between this fund's performance and the overall trend of the market. He **saves the categories** to expedite creating future reports on this fund.

Scene 3

Stuart double-checks the numbers before **plugging** them into Excel. An extremely sophisticated computer user, Stuart often creates Excel macros to help **speed** his calculations. When a company changes the format in which it presents information that Stuart uses, it makes his work considerably more difficult.

MorningstarInstitutional.com offers Stuart tools that help him create reports for his audiences. He can access fast, timely data about funds' financial performance over any time periods he selects, look at various types of rankings, and retrieve gross and net returns from all time periods.

Scene 4

In addition to preparing performance review reports, Stuart monitors his competitors and periodically generates reports comparing his company's overall performance to theirs. The data alerts he receives from MorningstarInstitutional.com help him stay on top of the investments he tracks. He also works on ad hoc research projects, including research for new product development.





Jennifer Monroe

Jennifer Monroe, 45, is Prudential's investment communications manager, responsible for retirement communications. She has an M.B.A. in marketing from Columbia University.

Jennifer has been online since the early 1990s and has been instrumental in expanding computer training programs for Prudential employees. In her spare time, Jennifer teaches girls about computers and financial issues.

Benefits

- Easy to access and update previously saved categories.
- Exportable format allows for maximum flexibility.
- Review hundreds of data points for each fund.
- Receive alerts when changes occur in information that is relevant to you.







Scene 1

Jennifer is a week away from her deadline: Her department must create **401(k)** marketing materials for a large plan sponsor. Prudential's fund prospectus and **single-sheet summary** will be included in the 401(k) packets distributed by participating corporations to their employees. In addition, the corporations want to post the information on their intranets.

She signs on to Prudential's account on MorningstarInstitutional.com, where she can easily access, from categories she has saved under "plan sponsor report data," the latest figures of the funds available to that plan sponsor. This ability to get current figures using previously saved categories has significantly reduced the time it once took Jennifer to obtain this information.

Scene 2

Jennifer gives the plan sponsor's figures to the production department, which will **import them into** a template and format they have used before. She will review the materials to ensure that the fund's returns **look as attractive as possible**, and still remain **compliant with NASD regulations**.

Scene 3

Jennifer has no time to take a break and must immediately start her next project, producing different information about the same funds for Prudential's institutional sales team. She returns to MorningstarInstitutional.com and, by pulling up categories she saved under "institutional sales report data," gains access to different figures about the same funds she researched earlier in the day. After running those numbers, she reviews a Morningstar Snapshot of her fund, which she uses to confirm that her analysis is in line with the assessments of Morningstar experts.

Scene 4

Next, Jennifer reads the alert she received from Morningstar updating her on the status of some of her competitors' funds. She adds that information to her weekly email to the sales and sales support departments, to help them answer potential questions from plan sponsors and participants. She also forwards the information to her assistant, who is preparing the monthly newsletter Prudential sends to its plan participants.





Josh Wilson

Josh Wilson, 26, is a marketing manager for Schwab. He received a B.S. in marketing from New York University and is considering getting an M.B.A. He has worked for Schwab for one year, moving from Johnson & Higgins, where he developed marketing materials for employee benefit plans.

At Johnson & Higgins, Josh became intimately familiar with communicating financial information to consumers. He prefers to work online, because he is assured that information is up-to-date and accessible from any computer.

Benefits

- Flexible format allows data to be imported into other applications
- Alerts assure that decisions are based on the most current information.
- Ad hoc requests easy to fill because data is available at your fingertips.
- Easily set up and save new report parameters.







Scene 1

Every day, Josh receives Morningstar's data feed and distributes the appropriate information throughout Schwab. Now that the data feed comes directly to Schwab's account on MorningstarInstitutional.com, the task is largely automated, taking far less time than it did before the site was created. In addition, Josh can quickly export the data into just about any software program. This flexibility is another great time-saver for him.

Scene 2

Josh **populates** Schwab's We site which exported Morningstar data **quickly and easily**. He realized that he needs to add a **data element** to his licenses and is able to do so instantly.

Scene 3

When Josh checks his email in the afternoon, he sees a request from Joe Donne in the sales department for a **specialized report on the quarter-end numbers** to use for a potential new corporate account. It's the third **unscheduled request** he's received today.

Scene 4

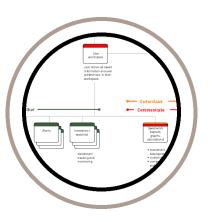
Josh takes a deep breath and clicks onto MorningstarInstitutional.com. Since this is the first report he has produced for Joe, Josh sets up a query with all the elements Joe has requested, saves the search in case he needs to use it to obtain up-to-date numbers at a later time, and very quickly retrieves exact quarter-end figures.



Section 8

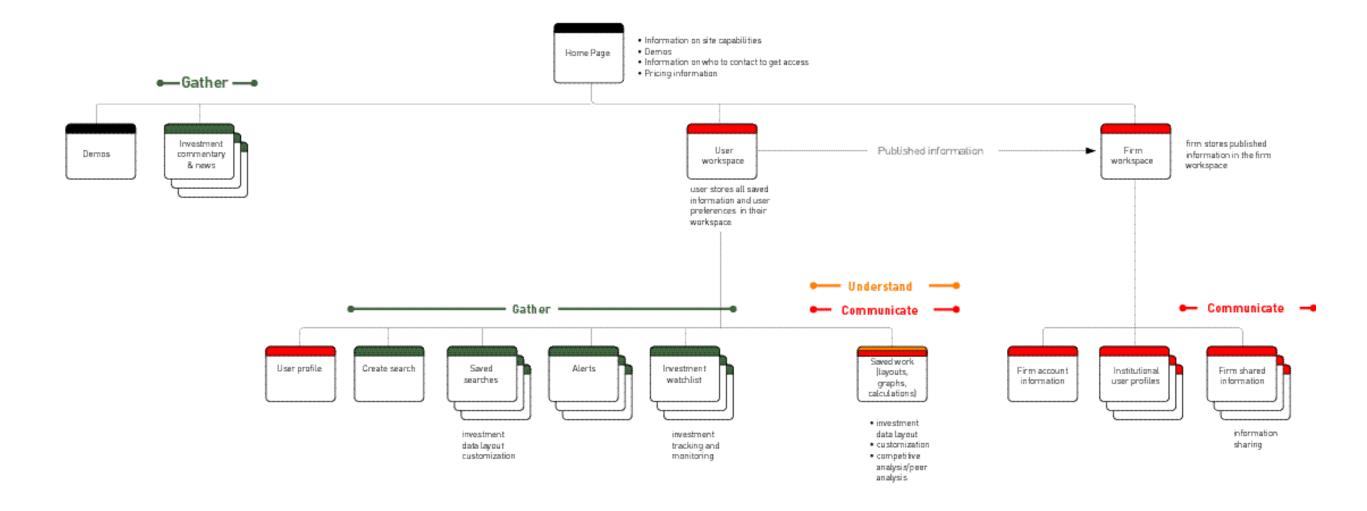
Institutional Site Map

This site map provides a high-level idea of how MorningstarInstitutional.com might be organized. This version is preliminary in design; Morningstar could expect a site map that drills further down in the site.





MorningstarInstitutional.com



This site map represents of preliminary version of the site architecture. It is a preliminary treatment only and should not be considered final.

Section 9

Next Steps



Next Steps

The Site Strategy project has outlined the high-level approach for Morningstar's advisor and institutional Web sites. We formed the initial foundation that defines the relationships between groups of features on the sites. The work produced in this project will be our roadmap as we move into the design and implementation phases, where we will describe the specific interactions between features. We will reference the knowledge detailed in this document and the attached appendix, as well as the separate "Morningstar User Findings and Frameworks," to build sites that best unify user needs with Morningstar's business needs.

Future stages will build out the community functions and subsequent tools-based features and functionality for the advisor and institutional sites. During the upcoming design phase, we will refine the guidelines for the sites until we have a detailed implementation strategy. In the early part of design, we will integrate the experience modeling findings and analysis captured in "Morningstar User Findings and Frameworks." Incorporating specifics about user interactions will ensure that the site structure and design reflects the way these users actually work online and that the user experience of the site aligns with user expectations.

Detailed information about the next phases of work are included under separate cover in the "Morningstar Web Strategy Implementation Stage 3 Proposal." This document contains the approach for moving forward, including the timeline, project plans, milestones, and the estimated cost and scope.

5

MorningstarSite Strategy Document Appendix

FEBRUARY 14, 2000

Appendix

A. Business Implications

B. Digital Brand Strategy

- Digital Brand Fundamentals
- Digital Brand Considerations
 - MorningstarAdvisor.com Digital Brand Considerations
 - MorningstarAdvisor.com Digital Brand Identity
 - MorningstarInstitutional.com Digital Brand Considerations
 - MorningstarInstitutional.com Digital Brand Considerations

C. Competitive Analysis

- Competitor Highlights
- Best Practices Analysis

D. Content Assessment

- MorningstarAdvisor.com Content Assessment
- MorningstarInstitutional.com Content Assessment

E. Principia Pro Assessment

- F. Front-End Technology Benchmark
- G. Other Model Options Considered
- H. Strategy Session Summary



Appendix A

Business Implications



After reaching preliminary consensus about the right site model for advisor and institutional markets, the team began to investigate the implications that this model would have on Morningstar's business.

Topics explored in this investigation included:

- Preliminary advisor and institutional site pricing strategies
- Product "bundling"
- Alternative site revenues
- User registration
- Next steps to close on pricing
- Existing customer transition
- New customer acquisition
- Other market-based and internal operational implications

The following is a summary of the preliminary discussions and decisions made in this phase of work.

Preliminary advisor and institutional site pricing strategies

The advisor and institutional sites offer products and services to multiple target market segments. The advisor site targets both the independent and captive advisor audiences. The institutional site offers products and services to multiple current and potential Morningstar institutional clients, each with distinct needs and requirements. The pricing strategy for these sites must accommodate the distinct needs and requirements of each of these user groups. Additionally, the pricing models need to be competitive, based on pricing for similar products in the marketplace. And finally, the pricing model needs to support the financial goals of Morningstar's advisor and institutional business units.



Preliminary advisor site pricing model

For the advisor site, the team described a pricing model composed of:

- Paid offerings (subscription and a la carte) and
- Free offerings

The "paid" and "free" offerings will need to be clearly identified for users of the advisor site. At the point-of-site-entry, users will be presented with free information, products and services, as well as teasers or links to offerings that will require registration and/or purchase decisions. The offerings on the advisor site will be categorized into the following pricing groups:

- Free for all users
- Free for registered users only
- Paid offerings

Decisions about which features will be offered "free for all users" and which will be offered "free for registered users only" will be based on whether the offerings are available at any of the following:

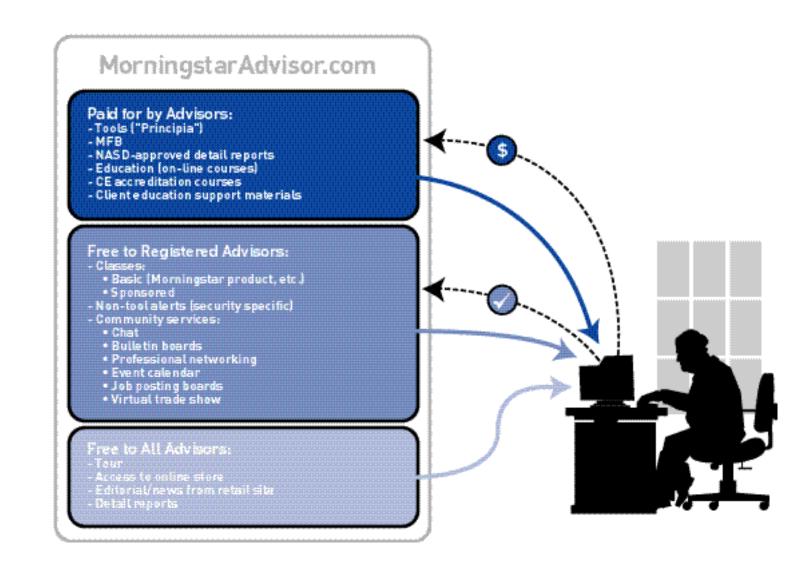
- Morningstar's retail Web site
- Advisor competitor sites
- Industry sites (i.e., standard free offerings, etc.)

In addition, offerings sponsored by institutions and other groups could eventually be made available at no cost to the site user, and could be offered as "free for registered users only."

Decisions about what to include in the "paid" pricing category will be based on whether the offerings are either:

- Existing revenue sources offline
- Differentiating, value-added offerings

The "paid" offerings on the advisor site will be divided into products and services that are subscription-based or a la carte. For subscription-based services, Morningstar will offer



annual subscriptions with an automatic renewal and the option to pay monthly.

Paid Offerings

Subscription

A La Carte

- Principia (tools)
- Client support materials

• MFB

- Education
- Client support materials
- Education

Because of the diversity of the audience types, these subscriptions and a la carte offerings will be priced at three levels:

- Single user
- Small office
- Large institution

Pricing of these offerings will be based on several other variables. The following list outlines the current and future pricing variables that should affect the offering price.

Pricing Variables

General:

Institutional discounts

Seat vs. group license

Duration

By Service

Principia Specific:

Module

Database

- ***Techfi
- ***An additional pricing variable to consider is the Techfi pricing model. Techfi's pricing model is fundamentally different from Morningstar's current pricing strategy. For the user, Morningstar's pricing will need to stay consistent, regardless of the client's relationship with Techfi.

Advisor site product bundling and modules

To better accommodate a wide range of independent and captive advisors, Morningstar will need to bundle services and tool & information modules. The "bundles" will be based on the following assumptions:

- Pre-packaged bundles of services will be sold at "bundled" prices to independent advisors and corporate accounts.
- Products, services and tool and information modules will be custom bundled for institutional corporate accounts. Anticipated modules include:
- Portfolio accounting
- Research
- Asset allocation
- Products, services, and modules will also be sold "unbundled," or a la carte.
- Bundles may include tools, information, and/or hard goods.
- Customization of products/services/modules will be available to institutional customers.



Advisor site alternative revenues

In addition to advisor revenue, the advisor site will generate revenue through institutional advertisers and sponsors. Valuable site user information will be aggregated and sold to sponsors at a premium price. Additionally, sponsors will be able to host events, sponsor products and services, etc. The immediate benefit to the site users will be that some of the sponsored site offerings will be available free to them.

Advisor site user registration

Site users will be required to register online before entering value-added areas of the advisor site. User registration is important for the following reasons:

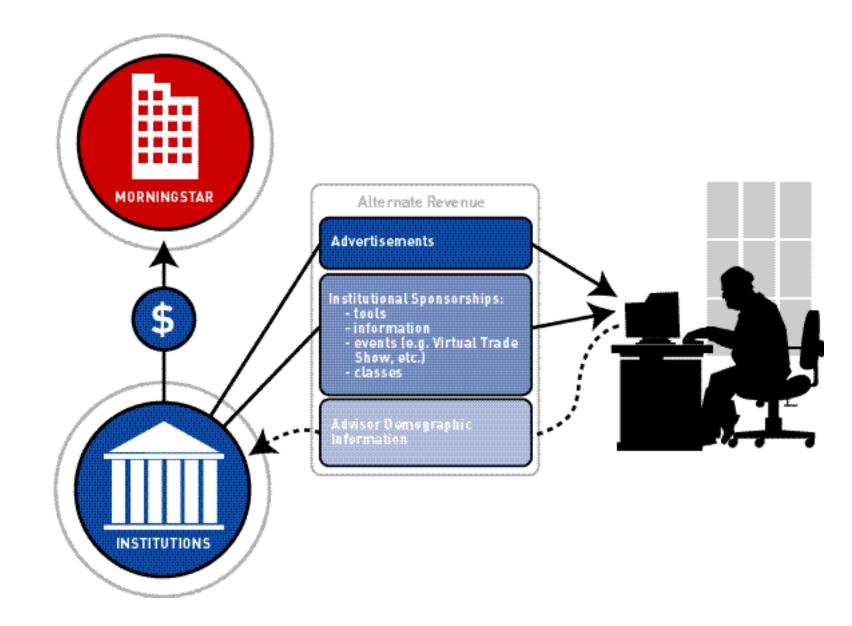
- Development of user-centered products and services
- Targeted marketing efforts
- Collection of qualified behavioral information about the users to sell to institutions

Registration will be positioned as a "user preference" identifier for personalization on the site. There will be two points of registration, one at the "teaser" presentation level and another at the "purchase/professional content" level of the site. User data will be collected at both points.

The team anticipated that user information collected from bulk registrations is likely to be different from information collected from individuals. This issue remains to be addressed.

The following list shows the kind of information that might be collected at the "teaser" level (premium free offerings) from independent advisor customers. Of these, some information will be required and some may be optional. Required and optional information is yet to be determined:

- Name
- Company name
- E-mail address
- Street address
- Zip code





- Professional designation/licenses
- Broker/dealer, custodian identification
- Annual compensation
- Assets under management

And at the "purchase" level, more information will be collected, including:

- Credit card number
- Transaction summary
- Billing/usage/legal agreements

Preliminary institutional site pricing model

For the institutional site, a pricing model composed of 1) subscription and 2) pay-per-use pricing meets the needs of the clients, the market/competition, and the business for this site. These two pricing approaches offer different advantages to Morningstar.

With subscription-based pricing, Morningstar benefits by having easier administration (e.g., billing, etc.) simplified sales, the ability to combat pricing transparency issues, and the ability to deliver more user-centric offerings.

Subscription-based pricing can be broken down into corporate, enterprise-wide and individual-based pricing (e.g., unlimited seats, limited seats, and single seats).

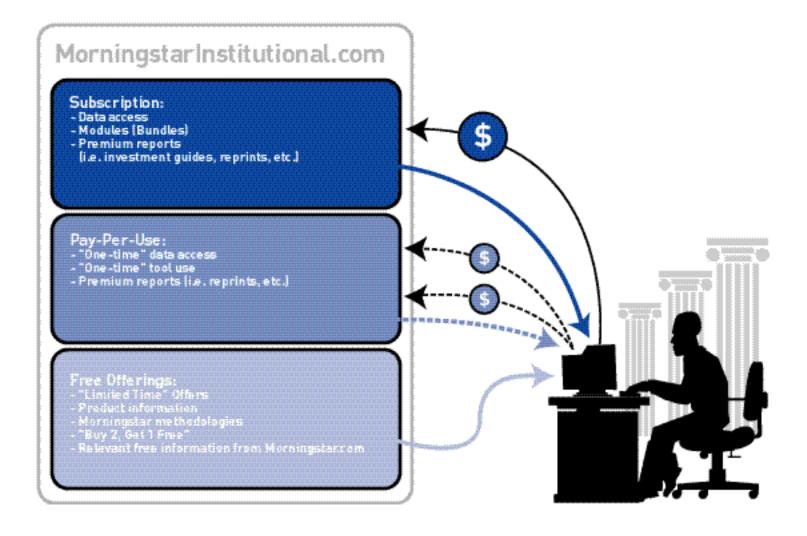
With pay-per-use pricing, Morningstar will have an opportunity to charge more and increase traffic for current and projected users with specific needs (i.e., flexibility of choice). Pay-per-use pricing will be based on criteria that are to be determined. Likely examples of these criteria are time, quantity of data, flat fees, or a combination.

Morningstar will have bundled offerings on-line within the subscription pricing structure and the pay-per-use pricing structure. Products will be bundled by data categories such as: performance, expenses (operations), portfolio characteristics, and portfolio holdings. Products could also be further bundled by data types (e.g., mutual fund, stocks, etc.).

Some Morningstar products offered on the institutional site will be free, to match the value of information offered at no cost on competitive sites and on other Morningstar sites. Institutional users that currently go to multiple other sites (retail and professional) would be able to get similar information at Morningstar's institutional site along with subscription-based and a la carte tools and information.

The current and future on-line institutional offerings can be broken into the following pricing categories:

Morningstar will offer premium products on the site, such as repackaged reports and special data services requests. Data fields, distribution, frequency, and breadth of data will drive the price of on-line data services. Clients can self-serve, including building and saving their own data queries, or they can contract with Morningstar for premium data services. The pricing of the premium data services will be consistent with current pricing for these services.



Next steps to close on pricing

The team identified the next steps that must be taken to determine specific pricing for online offerings. These steps include:

- Product Definition. With user input, the "bundles" and modules are grouped together to become discrete product offerings
- Product Cost Analysis. Once products are defined, an analysis of fixed and variable costs is necessary.
 Decisions about how much fixed and variable cost is assigned to each product are critical to making responsible pricing decisions.
- Competitive Analysis. Once products are defined, an analysis of relevant competitive products informs the final pricing decision.
- Customer Expectation Analysis. Part of the pricing decision is based on an understanding of what (if anything) customers expect to pay for on-line information, products and services.

Of these activities, product definition is the important first step towards closing on on-line prices. Cost, competitive and customer expectation analysis can begin concurrently, but ideally only after product definition is complete.

Transitioning existing customers

For both the advisor and institutional sites, Morningstar must transition existing customers from existing software-based products and services and custom-developed data feeds to the future on-line offerings.

The following is a summary of discussions held with the Advisor and Institutional groups about transitioning existing customers.

Transition of existing Advisor Customers

The team briefly discussed the migration of existing advisor customers from the software-based Principia product and MFB to on-line products. In these discussions a few basic assumptions and critical questions were identified:

- Morningstar will aggressively move customers from software based products to on-line offerings.
 Eventually, Morningstar will stop selling and supporting the software-based Principia product.
 Greater specificity of when this transition will be complete is dependent on a better understanding of the rate of user adoption of the new, on-line products and services.
- Principia migration and MFB migration will be handled as separate campaigns
- A campaign to explain the new on-line offering is needed
- The campaign should explain to existing customers where the on-line Principia product is similar to the software-based product
- The campaign should identify any new capabilities of the on-line product
- Likely media for this campaign include conferences, trade shows, and Principia Pro classes
- Other marketing efforts, including off-line (e.g., print, public relations, etc.) on-line (e.g., banner advertising, advertising at affiliate sites, sponsorships, etc.), and potential e-mail (direct to customers or "opt-in" lists) need evaluation. Evaluation criteria should include:
- What is the relative cost of the media?
- What is the brand awareness building capability of the media?
- How informative can we be through this media?
- How targeted is the media?
- How trackable is the media?

The team identified a few additional questions that pertain to transitioning advisor customers. The group agreed that these

questions would be examined as a part of the next phase of work. These guestions include:

- What can we do with technology to link our softwarebased products to the Web?
- Can we add functionality to our software-based product to help users pre-register or streamline registration at the advisor site?

Transition of existing institutional customers

For the institutional site, the following basic assumptions about customer transition were identified:

- Morningstar will need to migrate their current institutional clients to the new on-line offering
- Morningstar's sales force will have direct sales contact with clients to facilitate this process
- Morningstar will announce and communicate the new site in one or several of the following ways:
- Direct, off-line sales force communication
- Direct mail
 - With data feed
 - Separate
 - PR/advertising campaigns
- Advertisement or announcement at Morningstar.com
- Banner ads (on other Morningstar and affiliate sites)
- High-visibility events (e.g., conferences)
- "Limited time" special product offers and subscriptions

In many cases, marketing communications supporting customer transition will need to be coordinated between Morningstar's advisor and institutional groups.



New customer acquisition

Beyond transition of existing customers, both the advisor and institutional sites expect to solicit and win new customers. The team began preliminary discussions about potential new advisor and institutional customers, including a brief identification of who the potential new customers are and plans to drive traffic to the sites.

Acquisition of new advisor customers

The team identified several target market segments that could be targeted with the new-on-line advisor site offering, including:

- Independent advisors not currently using Morningstar products or services
- Captive advisors
- CPAs
- Insurance
- Banks, trusts
- Professionals currently using the Morningstar.com retail site

Specific plans to solicit and capture these audiences are yet to be outlined and completed.

Acquisition of new institutional customers

Among institutional accounts, the bundling of modular tools and services gives Morningstar the potential to increase market penetration into some institutional segments (e.g., investment research). Morningstar will communicate to potential new institutional customers in one or more of the following ways:

- Direct, off-line sales through Morningstar sales force
- On-line announcements (at the advisor site and morningstar.com)
- PR/advertising campaigns
- High-visibility events (e.g., at conferences)
- Free demos
- Limited time subscriptions

Other business implications

The proposed advisor and institutional site models suggest several implications for Morningstar's business. Some of these implications are market-based, while others relate to Morningstar operations. Implications identified by the team include:

- Advisor and institutional offerings must be clearly differentiated and articulated, particularly for current Institutional Principia users.
- Moving the institutional product offerings on-line may make it harder to account for client redistribution of information. Legal agreements will continue to be used and on-line disclaimers may be needed.
- Because of some inevitable price transparency, prices for institutional offerings will need to be more standardized than today's pricing.
- Implementing the sites will significantly affect staff across the institutional and advisor services groups and specifically those involved in content management, product development and management, product sales & support, and customer service.
- Decisions made about content and tools on each Morningstar site affects all sites. Many of these decisions need to be coordinated across business units.
- Some on-line product development and management decisions and activities will need to be coordinated across business lines.
- Although data access features will be built with user self-service in mind, Morningstar will need to offer on-line customer support for using tools, building queries, publishing reports, etc.
- With multiple pricing choices (e.g., subscription, pay-per-use, etc.), sales support staff will be asked to help clients choose the best payment plan for them.



Appendix B

Digital Brand Strategy



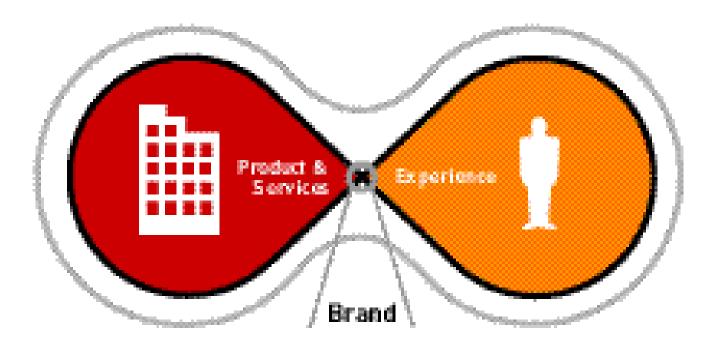
Digital Brand Fundamentals

What is a brand?

A brand is the focal point of trust between a company and its consumers.

Over time, a consumer forms a relationship with a brand that is based on personal identification with the brand and a trust that develops through a consistent experience with the brand. Each brand secures a unique position in the mind of the consumer, rooted in the sum total of every interaction, product, service, and communication that the consumer experiences with the brand.

For Morningstar, its brand represents the image it wants its consumers to associate with the company. The Morningstar brand, and the qualities associated with it, represents Morningstar and company as a whole and is referred to as the master brand. The brand allows Morningstar to endow the company, its products, and its services with unique associations that add perceived value and distinguish the company in the marketplace.

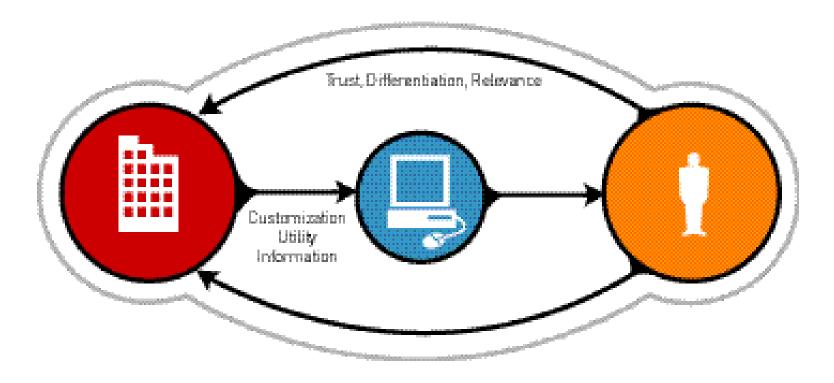


Digital Brand Fundamentals

How has the Internet affected brands?

The Internet has minimized the distance between companies and consumers, both in geography and experience. Every brand is now a global brand with the opportunity to build customer relationships in ways never before available. The Internet offers a brand the chance to establish a more intimate, one-on-one connection with the consumer.

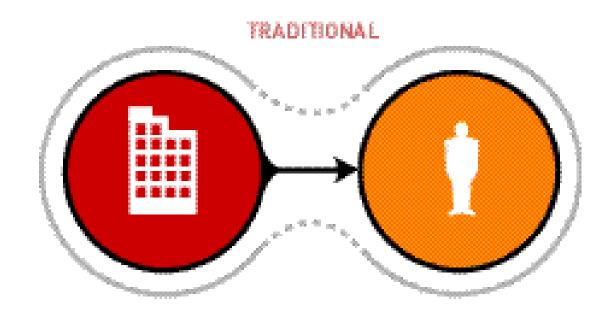
The Internet combines the experiences of a communication medium and a distribution channel, creating a constant dialogue between the brand and the consumer. As the Internet becomes more ubiquitous and transparent, consumers will begin to use this channel as their primary contact with the brand. In this real-time experience, a brand must provide a customized experience, utility, and information to support the consumer's trust, differentiate itself from competitors, and remain relevant.



Digital Brand Fundamentals

How does this change affect brand strategy?

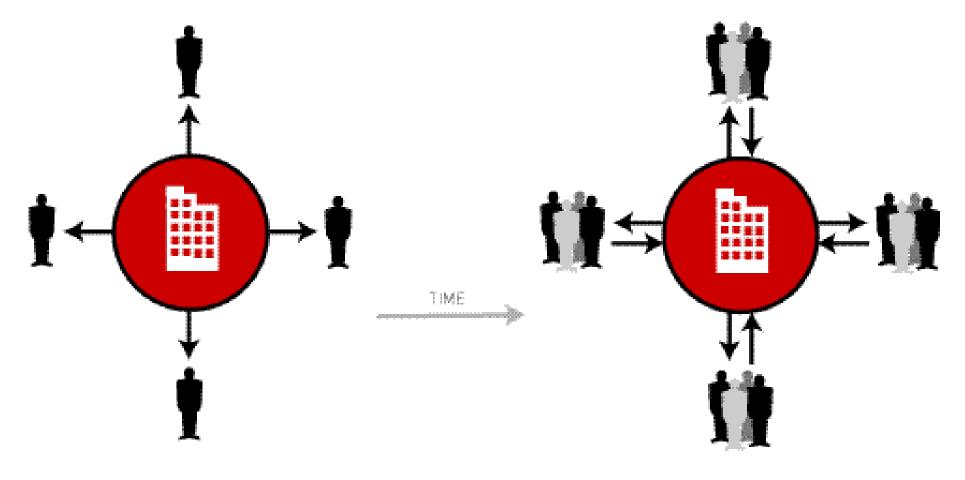
Traditionally, brand strategy has focused on building the image of a company, product, or service through advertising, which is a one-way communication tool. The Internet is changing that. As an interactive communication medium, it provides the consumer the opportunity to experience the brand, transforming traditional, one-sided company-to-consumer messaging into a truly experiential, two-way interchange. As a result, a brand must now function as a living, multidimensional, integrated, and interactive experience between a company and its consumers.



WITH INTERNET

Brand evolution

The Morningstar master brand will evolve to support Morningstar's goal to "host the marketplace of investment choice." The current perception of Morningstar is as a "financial information provider." Morningstar would like to be thought of as the "center of financial debate."



Morningstar as "financial information provider" Morningstar as "center of financial debate"

CURRENTSTATE

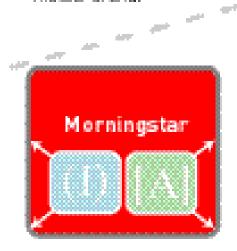
DESTRED STATE



Symbiotic growth

Any new properties in the Morningstar family should support the evolution of the master brand and be supported by the evolution of the master brand.

> New properties within the Morningstar femily should support evolution of the master brand.



Evolution of the master brand should support the Morningstar family.

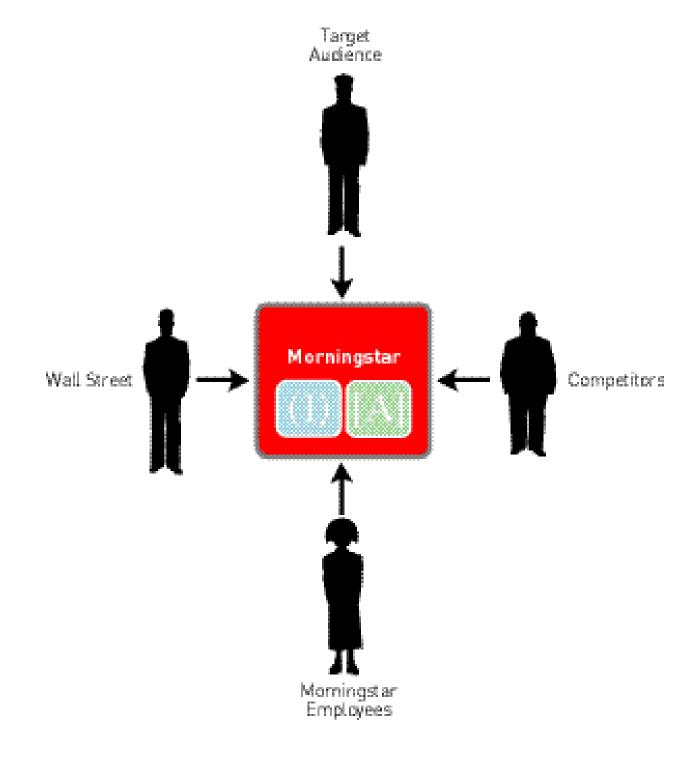


This evolution results in growth for the entire family.



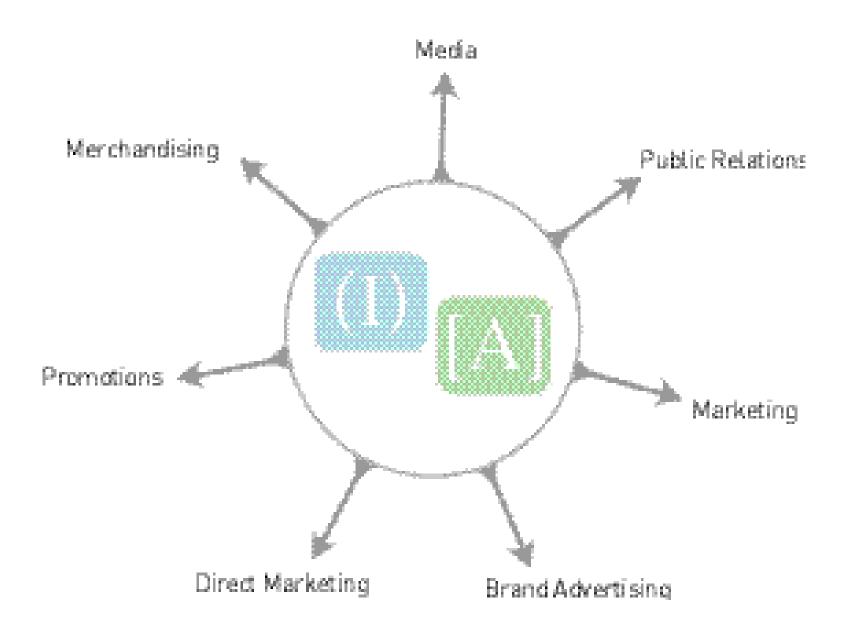
Multi-facing approach

MorningstarAdvisor.com and MorningstarInstitutional.com are multi-facing and should be constructed so that they are credible to competitors, Wall Street, Morningstar employees, and most importantly, the target audience.



Integrated communications

The branding concept provides focus for the creation and expansion of MorningstarAdvisor.com and MorningstarInstitutional.com. It also provides a foundation on which to develop integrated brand-building activities.



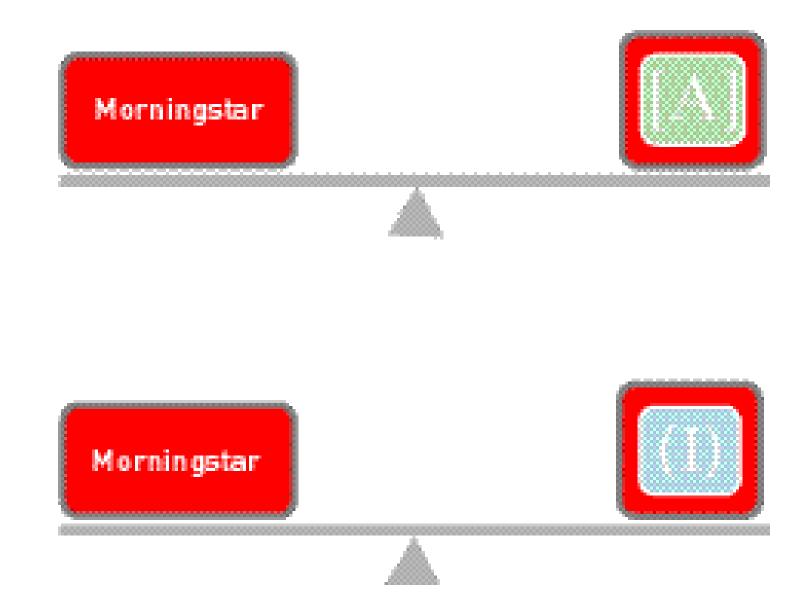
Leveraging the master brand

To leverage the master brand for MorningstarAdvisor.com and MorningstarInstitutional.com, we must first identify the brand's core associations and attributes. What does the brand mean to customers? From Discovery, we know that the Morningstar master brand is perceived as comprehensive, clarifying, established, empowering, independent, and objective.

Next, we must understand the master brand's boundaries. What are the links customers perceive between themselves and the Morningstar master brand? How strong are those links?

The Morningstar master brand has served people needing financial information for many years through print products, CD-ROMs, and, more recently the Web. The addition of MorningstarAdvisor.com and MorningstarInstitutional.com can be seen as both an extension of Morningstar's current products and as a large enhancement of those traditional efforts. Yet the foundation, or core strategy, of providing financial information remains the same for the sub-brands as for the master brand. Additionally, the core values of the sub-brands exist comfortably within the umbrella core values of the master brand. Thus, their inclusion in the Morningstar brand family leverages the Morningstar brand without pushing it beyond its limits.

The opportunity to create successful new identities lies in the ability to balance the current perceptions of Morningstar with the new perceptions of MorningstarAdvisor.com and MorningstarInstitutional.com. The Morningstar master brand is a valuable asset to both of these new sites, but these new sites' brands also need to cater more specifically to advisors and institutional customers than the current master brand does. The balance can be found in a well-executed subbranding strategy.





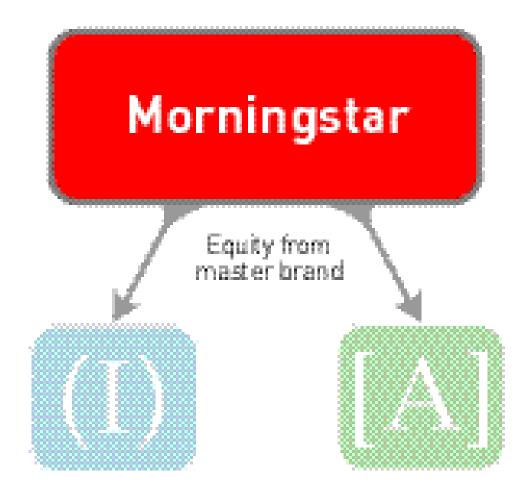
Sub-branding

For both MorningstarAdvisor.com and MorningstarInstitutional.com, Sapient recommends a subbranding strategy that utilizes the equity of the master brand and develops a distinct online presence relevant to each target audience

Adding a sub-brand can modify the master brand's meaning, so with each prospective extension of the master brand Morningstar must consider potential impacts on the entire brand portfolio. In this case, the additions support and are supported by Morningstar's master brand. By creating an online resource and community for advisors and an online data and analysis resource for Institutional Services customers, Morningstar serves the target audiences in new and relevant ways, and provides fundamental Morningstar services.

The MorningstarAdvisor.com and MorningstarInstitutional.com sub-brands will draw value from the strength of the Morningstar master brand. A sub-branding strategy will also reduce the risk of diluting the Morningstar master brand and reduce the financial support needed to build entirely new brand platforms. DuPont Stainmaster, Pepperidge Farm Goldfish, and Purina Dog Chow are examples of successful sub-branding strategies.

With a sub-branding strategy, the master brand remains the primary mark and the sub-brand is secondary.

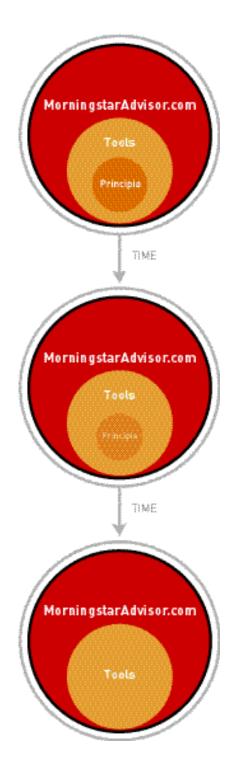


MorningstarAdvisor.com Digital Brand Considerations

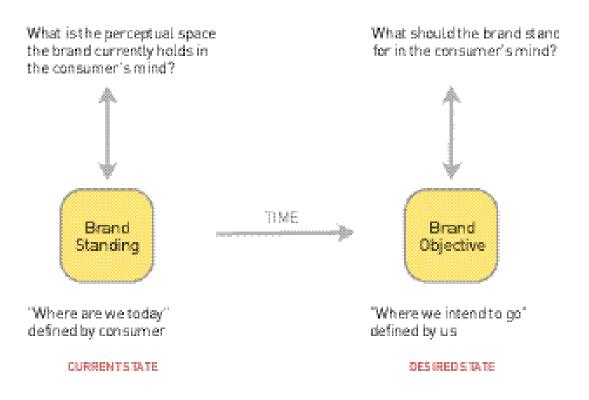
Principia brand role

On MorningstarAdvisor.com, Sapient recommends the use of a brand bundling strategy that incorporates Principia's brand.

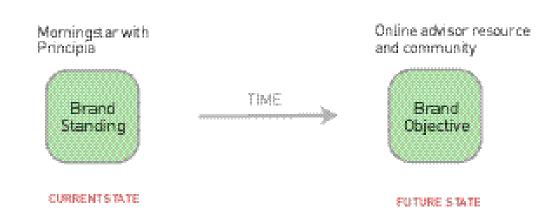
Brand bundling integrates one brand (the bundled brand) into a larger, more comprehensive brand (MorningstarAdvisor.com). The positive attributes of the bundled brand should fit seamlessly into the larger brand and add substance to this brand. In the case of MorningstarAdvisor.com, the presence of Principia will encourage migration to the new site of advisors who currently use the product. The Principia brand presence will not encompass the site's tool set, but will only be used in reference to tools similar those currently on Principia. Eventually, any mention of Principia on the Web site will be dropped. The tool set on MorningstarAdvisor.com will be more extensive than the tool set offered on Principia and should, therefore, not be hindered by the current perceptions of Principia.



MorningstarAdvisor.com Digital Brand Considerations



Therefore,



۶

Branding Idea for MorningstarAdvisor.com

Branding idea platform

Role of the product

The most compelling role (i.e., functional/symbolic) the product category plays in the life of the target audience.

Role of MorningstarAdvisor.com:

- Enhances efficiency
- Supports the advisor's credibility
- Uniting

Function of the product

The product function is what the product does to fulfill its role.

Product: MorningstarAdvisor.com

What the product does: Helps conduct and grow business.

What the product fulfills: Supports the business of giving advice.

Core desire

The most deeply held desire—the need, want, or hope that the brand can best fulfill.

Core desire for MorningstarAdvisor.com

To create a more productive advisor.

Reason to believe

The most compelling rationale to support the role of the product.

Reason to believe in MorningstarAdvisor.com

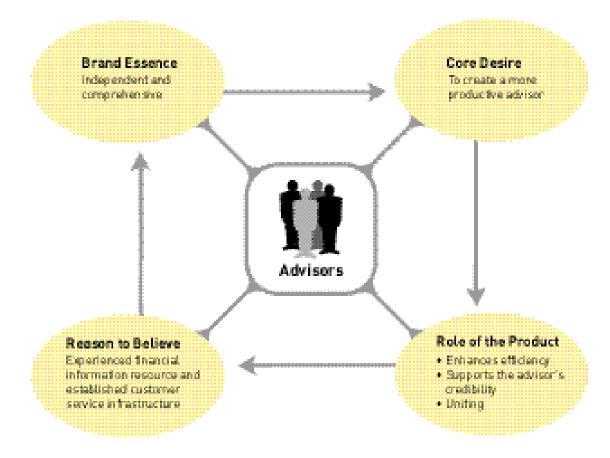
Experienced financial information resource and established customer service infrastructure.

Brand essence

The enduring spirit of the brand and how it speaks to the deeply held values of the target audience.

Brand essence of MorningstarAdvisor.com

Independent and comprehensive.



MorningstarAdvisor.com Brand Personality

MorningstarAdvisor.com Brand Personality

The brand personality answers two critical questions:

- 1. What are the characteristics (the "anatomy") that set the MorningstarAdvisor.com brand apart and adds value in the minds of the advisor audience?
- 2. What does the consumer believe the MorningstarAdvisor.com brand expresses, or could express?

MorningstarAdvisor.com Brand Anatomy

To place an effective new proposition into the marketplace, it is critical to understand the MorningstarAdvisor.com brand anatomy. A brand's anatomy comprises three elements: core values/attributes, brand benefits, and brand rationale. The following describes these elements as they apply to MorningstarAdvisor.com.

Core values

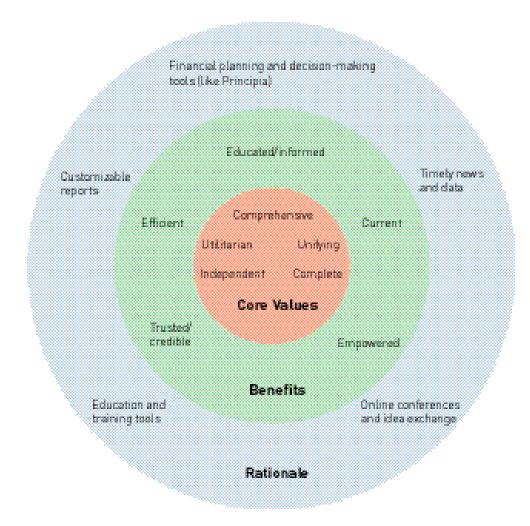
- Independent
- Comprehensive
- Utilitarian
- Unifying
- Complete

Benefits

- Trusted/credible
- Educated/informed
- Efficient
- Current
- Empowered

Rationale

- Financial planning and decision-making tools, like Principia
- Customizable reports
- Timely news and data
- Education and training tools
- Online conferences and idea



MorningstarAdvisor.com Brand Identity

MorningstarAdvisor.com Brand Expression of Personality

The MorningstarAdvisor.com brand is comprehensive, utilitarian, unifying, independent, and complete.

MorningstarAdvisor.com is comprehensive.

"MorningstarAdvisor.com is comprehensive because it offers both breadth and depth of investment information and a wide range of financial tools. Such product scope allows me to stay informed and provides solid analysis and analytic tools so I can service diverse clients effectively."

MorningstarAdvisor.com is utilitarian.

"MorningstarAdvisor.com is utilitarian because it is built to support my work, is easy-to-use, and offers the flexibility to customize information and reports. Such solution-oriented capabilities allow me to narrow my focus to relevant information and makes me efficient."

MorningstarAdvisor.com is unifying.

"MorningstarAdvisor.com is unifying, providing a community where advisors can connect with each other and with their product providers to exchange ideas and information. This exchange enables me to stay current with the changing marketplace."

MorningstarAdvisor.com is independent.

"MorningstarAdvisor.com is independent because its parent company/master brand, Morningstar, does not have any interest in the assets I manage for my clients. This allows me to trust the information Morningstar provides me, and lends me credibility in advising my clients."

MorningstarAdvisor.com is complete.

"MorningstarAdvisor.com is complete because it facilitates the planning, management, and ongoing monitoring of my clients' assets, while at the same time providing me with useful practice management guidance from industry participants and experts. This ability to leverage and expand my expertise empowers me to build and grow my business."

What is positioning?

Positioning is the bedrock upon which the MorningstarAdvisor.com brand is built. Positioning underlies all strategic brand decisions now and in the future. Engaging the target audience for the long-term requires time, money, and most importantly, consistency. To avoid causing consumer confusion, once established, the MorningstarAdvisor.com brand positioning should seldom change.

Positioning statements

The following positioning statements capture the MorningstarAdvisor.com brand's "reason for being" and create a unique brand identity:

- Provides a clear purchase rationale for the consumer
- Distinguishes the business from competitors in the consumer's eye
- Moves beyond brand identity, to consumer identity
- Helps advisors position themselves in their clients' minds

Six elements stand out in the MorningstarAdvisor.com brand's positioning statement:

- 1. Target customer
- 2. Brand name
- 3. Brand personality
- 4. Product/competitive frame
- 5. End benefit
- 6. Rationale support

Positioning statement

"MorningstarAdvisor.com is the comprehensive online resource and dynamic community that enables advisors to conduct and grow their business efficiently because of the fully integrated tools and actionable information delivered conveniently over the Web."

۶

MorningstarAdvisor.com Digital Brand Identity

Visual Design

Morningstar's visual design helps differentiate it from competitors. Visual design guidelines ensure that the most important and influential aspects of Morningstar's identity are conveyed to customers in digital media.

Morningstar's visual design for MorningstarAdvisor.com must emphasize clarity, utility, and simplicity. The designs should stay relevant to and consistent with Morningstar's existing visual identity. Visual design in all elements should:

- Provide customers with a consistent, engaging, and valuable experience
- Support the customer's proficiency with the site's features, functionality, and editorial content
- Express the MorningstarAdvisor.com brand to the Advisor audience

The following guidelines explain the components that will make up Morningstar's visual design for MorningstarAdvisor.com in digital media. Visual design components include:

- Logo
- Color palette
- Typography
- Imagery
- Animation

Logo

The logo should include both the master brand (Morningstar) and the new sub-brand (MorningstarAdvisor.com). The MorningstarAdvisor.com portion of the logo should complement, not overpower, the straightforward Morningstar logo, not unlike the Morningstar ClearFuture logotype. The arrangement of the two elements in the logo (Morningstar and MorningstarAdvisor.com) should reflect the nature of the master brand to sub-brand relationship. Also, the logo should convey a logical connection to the address of the site, www.morningstaradvisor.com.





These logotypes represent a possible look and feel for the MorningstarAdvisor.com identity. These treatments are based on an understanding of the Morningstar identity guidelines document, including its presentation of the identities for both Morningstar.com and Morningstar Clear Future. They should be considered "sketches" of some possibilities, rather than a final mark for the brand. We recommend a more thorough investigation of the MorningstarAdvisor.com logotype, based on the brand recommendations and the existing Morningstar identity guidelines, when moving forward.





Color palette

The MorningstarAdvisor.com color palette should be consistent with the palette used with other Morningstar materials but should have it own distinct look in relation to the current Morningstar.com site. Advisors should feel they are involved in a different experience on MorningstarAdvisor.com compared with their experience on Morningstar.com. Overall, the palette should emphasize clarity, utility, and simplicity, which can be expressed by minimizing the number of colors used.

Morningstar Color Palette



Although some customers will be able to view colors outside the 216-color Web-safe palette, Morningstar should limit its choice of colors to those within this palette to minimize involuntary color shifts for standard users.



MorningstarAdvisor.com Digital Brand Identity

Typography

MorningstarAdvisor.com typography should remain consistent with the typography of the Morningstar brand. Overall, MorningstarAdvisor.com should use typography that is easy to read, regardless of its size and spacing. However, because typography presentation varies according to the customer's browser, digital typography systems need to allow for flexibility.

Morningstar Fonts

abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ

Garamond (Adobe)

abcdefghijklmnopqrstuvwxyz ABCDEFGHUKLMNOPQRSTUVWXYZ

Futura (Linotype)

abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ

UniversiCondensed

Acceptable for Web Usage

Trebuchet Arial Helvetica Times

Imagery

MorningstarAdvisor.com's brand personality is differentiated, in large part, by its position as independent, comprehensive, utilitarian, unifying, and complete. Customers should perceive these qualities in any illustrations, graphics, or photography used.

Animation

Providing an efficient user experience on MorningstarAdvisor.com dictates that animation be avoided in most cases. However, animation is acceptable if it makes the interface easier to use.

Performance

In addition to the influence of visual design, opportunities exist to brand the customer experience through content, usability, technology, and service. Appendix D discusses how the content might represent the brand. The following guidelines describe how the other aspects of MorningstarAdvisor.com may be represented online.

Usability

The online performance of the brand can be measured by how easily an advisor interacts with MorningstarAdvisor.com and its many features. Web users will judge the brand on how quickly they can accomplish a task or obtain information on the site. To facilitate usability the site should provide:

Useful tools

Tools should be developed to allow advisors to conduct and grow their business efficiently. The steps required to extract or analyze data should be simple and give advisors a sense that their time is being well spent.

Clear, intuitive navigation

Navigational structure should be consistent within MorningstarAdvisor.com. It should be scalable or flexible enough to accommodate the expansion of new content areas or new tools. Advisors should easily understand the flow and grouping of information.

Concise, intuitive instructions

Concise commands and questions should guide customers through the MorningstarAdvisor.com's site. Such language will increase usability and ultimately allow the customer to spend more productive time on the site.

Fast-loading data and applications

MorningstarAdvisor.com should be easy to access, with pages, data, and applications that download quickly. Cumbersome, time-consuming graphics or technologies will have a negative effect on usability, while the careful, efficient, and optimal use of technology will strengthen the MorningstarAdvisor.com brand

Clear, hierarchical information structures

The architecture of data should always be consistent with customers' needs. MorningstarAdvisor.com must present a

clear information hierarchy that follows a logical path from general to detailed information. The architectural structure should be rational and scalable, and should accommodate added content and tools without disrupting established patterns—bookmarks, log-in processes.

Technology

New technologies introduce innovative and unique opportunities to reinforce the MorningstarAdvisor.com brand. To be perceived as useful and personal, Morningstar should carefully consider using new technologies on MorningstarAdvisor.com.

Relevant, high-performance functionality

New front-end technologies should only be used if they increase usability and are universally compatible with the customer's computer and computer skill level.

Any features that require a plug-in not included in most browsers should be avoided. New technologies come and go very rapidly and should be, to some degree, time-tested before Morningstar uses them. For MorningstarAdvisor.com, innovation should be defined as discovering new ways to use proven technology.

Any functionality should apply directly to customers' needs or their relationships with Morningstar. After Morningstar assesses the needs, it should weigh the functionality's accuracy, speed, and usefulness against those needs.

Functionality that does not work perfectly will devalue the advisor's perception of MorningstarAdvisor.com and Morningstar. Similarly, unnecessary functionality dilutes the brand.

Personalized automation

Morningstar should provide customized, personal experiences for the advisor audience. A customized site will give faster access to pertinent information, which allows visitors to feel a greater sense of efficiency and enhanced daily utility.



MorningstarAdvisor.com Digital Brand Identity

Service

The speed at which the Web delivers information leads customers to expect a higher-than-ever level of service.

Continuous, personal feedback

Feedback should be given to customers during their interaction with the site. This feedback may come in different forms, including visual or audio cues that indicate the completion of a task or request, or which suggest a secondary tool that will be helpful in further analysis.

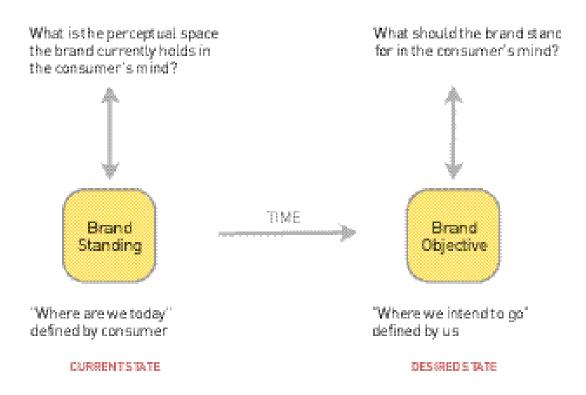
Feedback should always introduce elements of personalization to the greatest extent possible. For example, email responses may include a photo of the Morningstar employee who replies, or the site can welcome the user by name upon log-in, etc.

Clear information about request processing

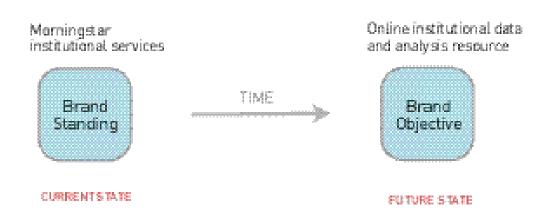
Fulfillment of transactional and informational requests should be clear and trouble-free. Morningstar must also provide virtually instantaneous feedback via email, telephone, fax, or other appropriate medium.



MorningstarInstitutional.com Digital Brand Considerations



Therefore,



Branding Idea For MorningstarInstitutional.com

Branding idea platform

Role of the product

The most compelling role (i.e., functional/symbolic) the product category plays in the life of the target audience.

Roles of MorningstarInstitutional.com

- Time saver
- Resource for flexible, easy-to-access data
- Source of credibility (for institutional marketers)

Function of the product

The product function is what the product does to fulfill its role.

Product: MorningstarInstitutional.com

What the product does: Provides timely, accurate, and usable data and tools to manipulate the data.

What the product fulfills: Building block for research and marketing efforts.

Core desire

The most deeply held desire—the need, want, or hope that the brand can best fulfill.

Core desire for MorningstarInstitutional.com

Maximize efficiency and effectiveness of customers' research and marketing efforts.

Reason to believe

The most compelling rationale to support the role of the product

Reason to believe in MorningstarInstitutional.com

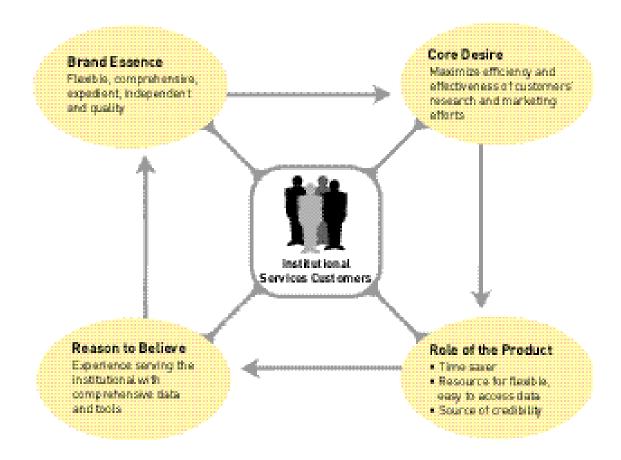
Experience serving the institutional market with comprehensive data and tools.

Brand essence

The enduring spirit of the brand and how it speaks to the deeply held values of the target audience.

Brand essence of MorningstarInstitutional.com

Flexible, comprehensive, expedient, independent, and quality.



MorningstarInstitutional.com Brand Personality

The brand personality answers two critical questions:

- 1. What are the characteristics (the "anatomy") that set the MorningstarInstitutional.com brand apart and adds value in the minds of the Institutional Services audience?
- 2. What does the consumer believe the MorningstarInstitutional.com brand expresses, or could express?

MorningstarInstitutional.com Brand Anatomy

To place an effective new proposition into the marketplace, it is critical to understand the MorningstarInstitutional.com brand anatomy. A brand's anatomy comprises three elements: core values/attributes, brand benefits, and brand rationale. The following describes these elements as they apply to MorningstarAdvisor.com.

Core values

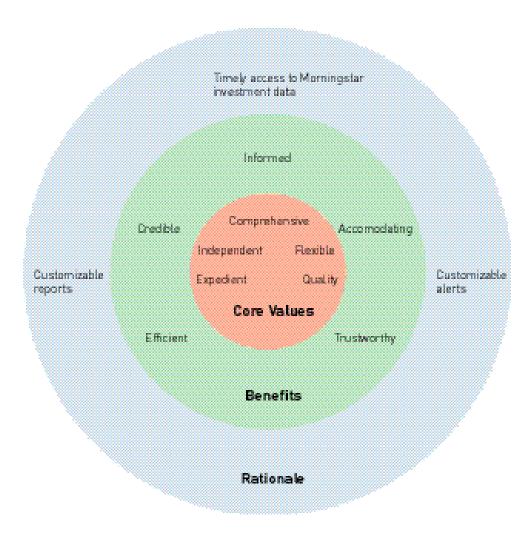
- Comprehensive
- Independent
- Flexible
- Expedient
- Quality

Benefits

- Informed
- Credible
- Accommodating
- Efficient
- Trustworthy

Rationale

- Customizable reports
- Timely access to Morningstar investment data
- Customizable alerts



MorningstarInstitutional.com Brand Personality

MorningstarInstitutional.com Brand Expression of Personality

The MorningstarInstitutional.com brand is comprehensive, independent, flexible, expedient, and quality

MorningstarInstitutional.com is comprehensive.

"MorningstarInstitutional.com is comprehensive because it offers both breadth and depth of timely and accurate data and the tools to manipulate it. This keeps me informed and enables me to conduct research and marketing efforts effectively."

MorningstarInstitutional.com is independent.

"MorningstarInstitutional.com maintains independence because its parent company/master brand, Morningstar, does not own, operate, or hold any interest in mutual funds, stocks or insurance products. This lends me credibility in my company and the marketplace."

MorningstarInstitutional.com is flexible.

"MorningstarInstitutional.com provides flexibility for an ever changing marketplace because its data is customizable and easily accessible and usable. Such accommodation allows me to get the data exactly the way I want it, when I want it."

MorningstarInstitutional.com is expedient.

"MorningstarInstitutional.com is expedient because it allows me to access data quickly and is easy-to-use. This makes best use of my time and makes me efficient."

MorningstarInstitutional.com is quality.

"MorningstarInstitutional.com provides quality data that is accurate and up-to-date. This allows me to trust the data I use in my research and marketing efforts."

What is positioning?

Positioning is the bedrock upon which the MorningstarInstitutional.com brand is built. Positioning underlies all strategic brand decisions now and in the future. Engaging the target audience for the long-term requires time, money, and most importantly, consistency. To avoid causing consumer confusion, once established, the MorningstarInstitutional.com brand positioning should seldom change direction.

Positioning statements

The following positioning statements capture the MorningstarInstitutional.com brand's "reason for being" and create a unique brand identity:

- Provides a clear purchase rationale for the consumer
- Distinguishes the business from competitors in the consumer's eye
- Moves beyond brand identity to consumer identity
- Helps advisors position themselves in their clients' minds

Six elements stand out in the MorningstarInstitutional.com brand's positioning statement:

- 1. Target customer
- 2. Brand name
- 3. Brand personality
- 4. Product/competitive frame
- 5. End benefit
- 6. Rationale support

Positioning statement

"For investment research and marketing managers, MorningstarInstitutional.com is the flexible online data and analysis resource that enables customers to perform their research and marketing efforts efficiently, effectively, and with credibility, because it offers access to comprehensive and timely data and analytical tools."

MorningstarInstitutional.com Digital Brand Considerations

Principia brand role

Principia has a level of awareness among institutional customers. It is a tool that some use and with which others are familiar. However, for this audience, Principia's value as a brand is minimal. Morningstar's relationship with institutional customers is based on the equity of the Morningstar brand and the quality data that Morningstar provides. These customers view Principia only as a tool to get that data and, moreover, as a tool designed for advisors. The launch of the MorningstarInstitutional.com site is an opportunity to create institutional–specific associations for the tools acquired from Principia, the site should not bind itself to the Principia brand. The experience for customers on MorningstarInstitutional.com will be unlike any experience they have had with Principia.



MorningstarInstitutional.com Digital Brand Identity

Visual Design

Morningstar's visual design helps differentiate its from competitors. Visual design guidelines ensure that the most important and influential aspects of Morningstar's identity are conveyed to customers in digital media.

Morningstar's visual design for MorningstarInstitutional.com must emphasize clarity, utility, and simplicity. The designs should stay relevant to and consistent with Morningstar's existing visual identity. Visual design in all elements should:

- Provide customers with a consistent, engaging, and valuable experience
- Support the customer's proficiency with the site's features, functionality, and editorial content
- Express the MorningstarInstitutional.com brand to the Institutional Services audience

The following guidelines explain the components that will make up Morningstar's visual design for MorningstarInstitutional.com in digital media. Visual design components include:

- Logo
- Color palette
- Typography

Animation

Imagery

Logo

The logo should include both the master brand (Morningstar) and the new sub-brand (MorningstarInstitutional.com). The MorningstarInstitutional.com portion of the logo should complement, not overpower, the straightforward Morningstar logo, not unlike the Morningstar ClearFuture logotype. The arrangement of the two elements in the logo (Morningstar and MorningstarInstitutional.com) should reflect the nature of the master brand to sub-brand relationship. Also, the logo should convey a logical connection to the address of the site, www.morningstarinstitutional.com.





These logotypes represent a possible look and feel for the MorningstarInstitutional.com identity. These treatments are based on an understanding of the Morningstar identity guidelines document, including its presentation of the identities for both Morningstar.com and Morningstar Clear Future. They should be considered "sketches" of some possibilities, rather than a final mark for the brand. We recommend a more thorough investigation of the MorningstarInstitutional.com logotypes, based on the brand recommendations and the existing Morningstar identity guidelines, when moving forward.

MORNINGSTAR Institutional.com



Color palette

The MorningstarInstitutional.com color palette should be consistent with the palette used with other Morningstar materials, but should have its own distinct look in relation to the current Morningstar.com site. Institutional Services customers should feel they are involved with an experience on MorningstarInstitutional.com that is different from any experience they might have had on Morningstar.com. Overall, the palette should emphasize clarity, utility, and simplicity, which can be expressed by minimizing the number of colors used.

Morningstar Color Palette



Although some customers will be able to view colors outside the 216 color-Web-safe palette, Morningstar should limit its choice of colors to those within this palette to minimize involuntary color shifts for standard users.

5

MorningstarInstitutional.com Digital Brand Identity

Typography

MorningstarInstitutional.com typography should remain consistent with the typography of the Morningstar brand. Overall, MorningstarInstitutional.com should use typography that is easy to read, regardless of its size and spacing. However, because typography presentation varies according to the customer's browser, digital typography systems need to allow for flexibility.

Morningstar Fonts

abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ

Garamond (Adobe)

abcdefghijklmnopqrstuvwxyz ABCDEFGHUKLMNOPQRSTUVWXYZ

Futura (Linotype)

abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ

Universition densed

Acceptable for Web Usage

Trebuche Arial Helvetica

Imagery

MorningstarInstitutional.com's brand personality is differentiated, in large part, by its position as comprehensive, independent, dynamic, expedient, and quality. Customers should perceive these qualities in any illustrations, graphics, or photography used.

Animation

Providing an efficient user experience on MorningstarInstitutional.com dictates that animation be avoided in most cases. However, animation is acceptable if it makes the interface easier to use.

Performance

In addition to the influence of visual design, opportunities exist to brand the customer experience through content, usability, technology, and service. Appendix D discusses how the content might represent the brand. The following guidelines describe how the other aspects of MorningstarInstitutional.com may be represented online.

Usability

The online performance of the brand can be measured by how easily an Institutional Services customers interacts with MorningstarInstitutional.com and its many features. Web users will judge the brand on how quickly they can extract and analyze data on the site. To facilitate usability the site should provide:

Useful tools

Tools should be developed to allow

MorningstarInstitutional.com customer to perform their research and marketing efforts efficiently and effectively. The steps required to extract and analyze data should be simple and give Institutional Services customers a sense that their time is being well spent.

Clear, intuitive navigation

Navigational structure should be consistent within MorningstarInstitutional.com. It should be scalable or flexible enough to accommodate the expansion of new tools or content areas. Institutional Services customers should easily understand the flow and grouping of information.

Concise, intuitive instructions

Concise commands and questions should guide customers through the MorningstarInstitutional.com's site. Such language will increase usability and ultimately allow the customer to spend more productive time on the site.

Fast-loading data and applications

MorningstarInstitutional.com should be easy to access, with pages, data, and applications that download quickly. Cumbersome, time-consuming graphics or technologies will have a negative effect on usability, while the careful, efficient,

and optimal use of technology will strengthen the MorningstarInstitutional.com brand.

Clear, hierarchical information structures

The architecture of data should always be consistent with customers' needs. MorningstarInstitutional.com must present a clear information hierarchy that follows a logical path from general to detailed information. The architectural structure should be rational and scalable, and should accommodate added content and tools without disrupting established patterns—bookmarks, log-in processes.

Technology

New technologies introduce innovative and unique opportunities to reinforce the MorningstarInstitutional.com brand. To be perceived as useful and personal, Morningstar should carefully consider using new technologies on MorningstarInstitutional.com.

Relevant, high-performance functionality

New front-end technologies should only be used if they increase usability and are universally compatible with the customer's computer and computer skill level.

Any features that require a plug-in not included in most browsers should be avoided. New technologies come and go very rapidly and should be, to some degree, time-tested before Morningstar uses them. For MorningstarInstitutional.com, innovation should be defined as discovering new ways to use proven technology.

Any functionality should apply directly to customers' needs or their relationship with Morningstar. After Morningstar assesses the needs, it should weigh the functionality's accuracy, speed, and usefulness against those needs.

Functionality that does not work perfectly will devalue the advisor's perception of MorningstarInstitutional.com and Morningstar. Similarly, unnecessary functionality dilutes the brand.



MorningstarInstitutional.com Digital Brand Identity

Personalized automation

Morningstar should provide customized, personal experiences for the Institutional Services customer. A customized site will give faster access to pertinent information, which allows visitors to feel a greater sense of efficiency and enhanced daily utility.

Service

The speed at which the Web delivers information leads customers to expect a higher-than-ever level of service.

Continuous, personal feedback

Feedback should be given to customers during their interaction with the site. This feedback may come in different forms, including visual or audio cues that indicate the completion of a task or request, or which suggest a secondary tool that will be helpful in further analysis.

Feedback should always introduce elements of personalization to the greatest extent possible. For example, email responses may include a photo of the Morningstar employee who replies, or upon log-in the site can welcome the user by name, etc.

Clear information about request processing

Fulfillment of transactional and informational requests should be clear and trouble-free. Morningstar must also provide virtually instantaneous feedback via email, telephone, fax, or other appropriate medium.

Review of Existing Morningstar Visual Design

The design of existing Morningstar materials must be considered when developing the future brand and visual identities of MorningstarAdvisor.com and MorningstarInstitutional.com. The current visual design—primarily divided between a strong logotype, print, and packaging design, and the existing Morningstar.com site—consists of a myriad of looks and colors that call for a cohesive visual family.

Logotype

The current logotypes is strong and consistently used on the Web, CDs, and even coffee mugs. Designed by Paul Rand, the logotype remains one of the most appealing aspects of the Morningstar visual identity.

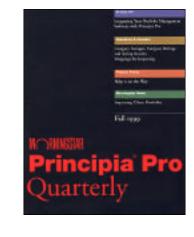


Print collateral

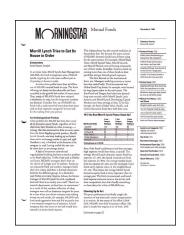
Diverse publications and products have broadened the range of possible look-and-feel for the Morningstar visual family. Through somewhat uniform use of shapes, colors, and the Morningstar logo, a visual consistency is maintained.













s

Morningstar.com Visual Assessment

Morningstar.com is a retail site, targeting both individual and professional investors. The site is editorial-based, with almost every page providing a wealth of information and links both vertically and horizontally. The site provides quick access to stock and fund information, giving a "snapshot" of the statistics by translating performance data into charts and graphs. Due to the vast amount of information, the design must be very structured. A simple layout, visual cues, and consistent visual vocabulary are key to maximizing user-friendliness, while accommodating user needs.

Brand

The Morningstar identity has a strong presence on the site. Both the scale and the placement of the logo are effective; the logo is highly visible but not overwhelming. The logo is consistent throughout all levels of the site. The logo bleeds into a horizontal bar that is in the "Morningstar red." Reinforcing the identity, this horizontal bar is a framing device that pulls together elements on the page. On the main page, the catchphrase (Your First Second Opinion) is reversed out on the red bar and placed below the logo. This treatment is consistent with Morningstar ads and print collateral.

Color palette

Aside from the red in the Morningstar identity, the site employs an otherwise neutral palette. The "Morningstar red" is used on the top of every page alongside the logo to prominently stage the brand. Dark gray, black, and shades of earthy beiges and greens are used predominantly throughout, mainly as background and header colors. These shades are muted, and do not overpower the red in the Morningstar identity. The color palette is conservative; the neutral shades suggest reliability and credibility.

Grid system

The grid system may seem inconsistent because it appears to have four columns on some pages (including the main page) and three columns on others. The site actually has a three-column grid system that is used consistently throughout. The first column is always the navigation (first- and second-level pages) with a beige color background. The middle column is

the widest and contains the main copy and feature links. On a majority of pages the middle column is sub-divided either in halves or in thirds. For example, on the main page the middle column is sub-divided into both halves and thirds. On the "About Us" page the middle column is divided into thirds, with some content extending across two-thirds of the column. The third column is blank on many pages. On the site's main page, the third column is the "Market Pulse" that contains stock quotes and quick links to stock/fund information. The width of the site's top banner matches the total width of the three columns, generating a clean and structured layout.

Typography

Futura is used on all section headers (inside navigation), page headers, and on the catchphrase. The Futura "O" is a perfect circle, which reiterates and reinforces the perfect circle "O" in the Morningstar logo. All the links and copy are formatted in a sans serif hypertext. Overall, the typography is appropriate and consistent.

Imagery and iconography

The site makes minimal use of imagery. Photos are used for some of the feature links. In most cases the photos are relatively small, and are used to add visual interest to copybased pages. Headers are reversed out of a contrasting background, and effectively highlight and group information. Four of the buttons (Membership, About Us, Products, Help) in the global navigation have accompanying icons, and the respective page headers are accompanied by the larger version of the same icons. These buttons/icons are distinguished from the other buttons in global navigation. They link to general information about the site to help a first-time user get acquainted.

Navigation system

Morningstar.com is a fairly deep site, with many levels of information. The current navigation is somewhat difficult for a first-time user. The top global navigation is split into two groups; one group sits in the upper-right corner and the other group sits on the gray banner. Also, side navigation lists specific links, some of which are repeated in the global



Morningstar.com Visual Assessment

navigation. For example, "Products" is an option in the global navigation, and is also a header with a list of links to specific products on the side navigation. The same confusing duplication occurs with the "Membership" option. The navigation system could be improved if the primary and secondary links of the same section were consolidated.

The visual language developed for Morningstar.com is applied consistently throughout the site, and all design elements complement and support one another. Since the site updates its content regularly, the typical user might visit the site frequently and want a quick and direct way of getting desired data/information. Overall, the site exhibits a high level of functionality and creates a sense of community for its users.





Morningstar.com Visual Recommendations

Recommendations for MorningstarAdvisor.com and MorningstarInstitutional.com:

Depending on how MorningstarAdvisor.com and MorningstarInstitutional.com are branded, their visual design can be dramatically different from Morningstar.com. However, the new sites can, and should, employ some of the fundamental design elements from Morningstar.com that work effectively. The solid grid structure, cleanliness, appropriate color palette, and imagery of Morningstar.com can be applied to these new sites. The sense of reliability, credibility, and community from Morningstar.com should also be conveyed to the new sites. Lessons can be learned from the flaws in the navigation system. Incorporating elements that are effective, and correcting those that are not, will help maximize user-friendliness and ensure high-level performance on these new sites.



Appendix C

Competitive Analysis

Competitive Analysis

During Site Strategy, Sapient conducted a competitive analysis from several points of view, including: Brand Strategy, Content Strategy, Digital Business, Information Architecture, and Visual Design. The purpose of this analysis was to understand industry Web site standards, validate concepts for the advisor and institutional sites, and recommend best practices from both competitive and non-competitive web sites.

This document is composed of two sections:

- Competitor Highlights
- Discipline Site Assessments

The first section, Competitor Highlights, is an assessment/analysis of two direct competitors to Morningstar: AdvisorInsight.com and Financial-planning.com. In the second section, several of the disciplines outline best practices from their individual perspectives.

Site Composition and Capabilities

Site overview and assessment

- Target Audience: Targeted specifically at the intermediary market.
- Brand Position: For the retail investment advisor, S&P's AdvisorInsight.com is a provider of S&P branded market intelligence and analysis that help you stay abreast of your market and deliver insight to your clients.
- Visual Design: Although graphically uninspired, it is clean and consistent throughout, with a clear, conveniently located navigation system to guide the way.
- Content and Tools:
- S&P market intelligence
- Planning and portfolio tools
- Market news and commentary
- Research and investment ideas
- Pinpoint prospects for investment opportunities
- Report and recommendation preparation
- Third Party Content: Links (available to non-subscribers) to other S&P Web services: Index Services, Small Cap 600, S&P 500, MidCap 400, Investor Relations Info, and Market Access Program. Alert services are also available (Index Alert and Index REIT Alerts).
- Customization: Institutions may buy and post the site on their Intranets for their advisors to use. Also, advisors have access to customizable newsletters, reports, etc.
- Personalization: None visible to non-subscribers.
 Through the Advisor Pro Tool, advisors can create and upgrade their own Web sites
- Community: None
- Tone/Voice: Two-tier, for advisors and their clients.

Site best practices

- Tone/Voice: Two-tier tone that is appropriate for both target audiences. Quick, straightforward for advisors; more explanatory for consumers. For example, the articles for advisors to give to their clients clearly and patiently explain topics that consumers might not understand.
- Content: Short, concise blurbs enable quick reading of industry news, stock updates, changes in company rankings of stocks, media coverage of various funds.
- Visual: In a world of "down and dirty, get to the point" financial sites, this site is cleaner than most and easy to follow.
- Information Architecture: Clear, conveniently located navigation system to guide the way
- Brand: Solid brand positioning.





Site improvements/recommendations

AdvisorInsight.com is not leveraging other S&P content, only linking to it. This content could be integrated more fully, since both advisors and their customers might be able to use this information.

Detailed site features

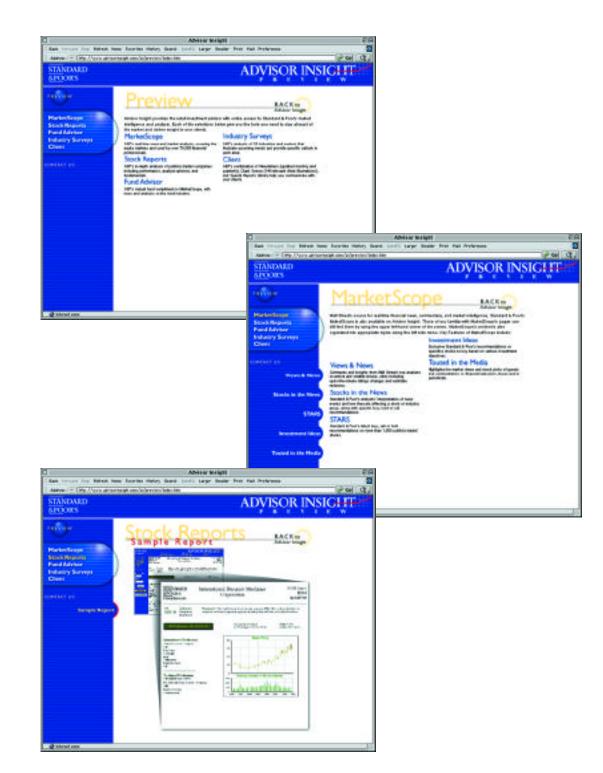
Advisor Insight is designed to provide retail investment professionals the information they need to do research for and make presentations to their clients. The site is composed of five parts:

- MarketScope
- Stock Reports
- Fund Advisor
- Industry Surveys
- Client

MarketScope – Real-time news and market analysis covering the equity markets. Includes articles and information briefs released on a real-time basis (i.e., as the market suggests). Ease of navigation: categorized by topic, but searchable by keyword and company name/ticker.

- Views & News quick blurbs
- Stocks in the News quick blurbs
- STARS (Stock Appreciation Ranking System) ranking changes
- Investment Ideas text notes
- Touted in the Media quick blurbs

Stock Reports – In-depth analysis of publicly traded companies including performance, analyst opinions, and fundamentals. Each is a four-page report. Search by name/ticker or screen using over 200 variables. Reports give each stock a STAR rating and Fair Value score. They cover 6900 equities.





Fund Advisor – News and analysis on the fund industry and individual funds. Includes manager interviews (continually added and refreshed) and profiles, commentaries on specific funds, fund family/industry news items, research ideas. Search by name/ticker or screen by criteria on over 10,000 funds. There is a fund report on each mutual fund that also includes a STAR rating. Also includes S&P's list of "Select Funds."

- Fund Manager Profiles and Interviews Who's who of managers: investment style, history, results.
- Funds in Focus Profiles and highlights.
- Mutual Fund News Quick blurbs.
- Fund Screens Charts comparing performance of various funds.
- Mutual Fund Reports Detailed facts and figures; searchable.

Industry Surveys – Industry overviews that cover 52 major US industries and 115 market sectors. These reports talk about upcoming economic trends and provide market forecasts, textual analysis, charts, and tables.

Client – Easy-to-use tools for helping advisors keep clients informed. S&P's combinations of customizable newsletters (i.e., eight general topics with two articles each formatted nicely for client distribution, updated quarterly), pre-canned presentations/seminars (12 different ones), charts (over 20), customizable graphs, and special reports (80+ on various investment objectives). Of particular note: Advisor Pro, an Internet tool that gives advisors the ability to create and update their own personalized web site.

- Chart Source Pre-formatted charts showing topics including Investment Fundamentals, Performance, and Strategies.
- Newsletters Consumer-oriented, on various topics. Friendly tone clarifies sometimes complicated topics.
- Special Reports Consumer-oriented; more bullet points than articles, more specific topics.

Reference – S&P reference publications: Stock Guide, Bond Guide, Earnings Guide, Corporation Records, Dividend Record, Register of Corporations, Register of Executives, Security Dealers of North America, and The Outlook newsletter. Standard & Poor's reference access:

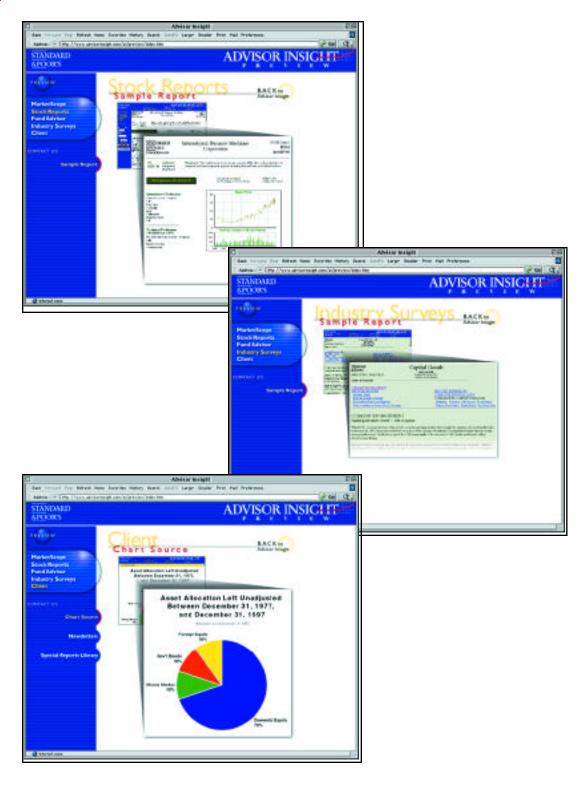
- S&P Comstock Real-time market information designed for traders. It contains information on 140 global markets.
- S&P Securities Inc. Brokerage firm offering trade execution and research to professional investors.
- S&P Blue List Municipal and corporate bond data.
- Micropal Covers over 40,000 managed funds around the globe including private money managers.
- Compustat Information on over 4,000 international companies.

Current product/service pricing

AdvisorInsight.com currently bundles four modules (market info, stock info, fund info, and client tools) for \$2375/yr for 1-3 users. Modules are also offered separately and priced a la carte at the following price points:

MarketScope \$1233 Stock \$1095 Funds \$695

The site also generates alternative revenue from advertising sales.





Competitive strengths

Standard & Poor's is known for its robust data. As high-end advisors begin to offer more sophisticated investment options to their high net worth clients, they will want to provide this robust information. S&P also has institution-level tools that could potentially make up an "advisors desktop" (e.g., trade execution, etc.).

Another competitive advantage for AdvisorInsight.com is the financial backing of its parent company, Standard & Poor's. Standard & Poor's is a member of the McGraw-Hill Companies. The following is recent annual revenue for both groups:

Revenue (\$ billion)

McGraw-Hill \$3.7 Standard & Poor's \$1.5

S&P is aggressively investing in Internet technology and focusing on providing Internet-based solutions to all of its clients. All S&P's business units are providing services via the Internet.



Section I: Competitive Highlights: Financial-Planning.com

Site Composition and Capabilities

Site overview and assessment

- Target Audience: Financial-Planning.com is targeted at financial advisors and planners. The site content, etc., appears to be tailored for independent advisors.
- Brand Position: Financial-Planning Interactive is a source of news, information, and discussion forums to help users with financial planning for their clients.
- Features:
- Editorial Content
 - Weekly spotlight story on chosen subject
 - Weekly original editorial on the following subjects:
 - Practice Management
 - Investments
 - Financial Planning
- News
- Advisor-specific
- General industry
- Community
- Postings in moderated forums. Moderated topics:
 - Investment and retirement planning
 - Life events
 - Practice management
 - Shop talk
 - Career
- Education
- Continuing education. Quizzes worth one hour of CFP continuing education credit.

Site best practices

- Business Model: Building a community of advisors.
- Brand: Branding is consistent throughout site.
- Tone/Voice: Appropriate to targeted audience, independent advisors.

Current product/service pricing

The advisor offerings on this site are free to users. Financial-Planning.com generates revenue through advertising and some sponsored offerings.

Competitive advantage

Financial-Planning.com has the "first-mover" advantage in their chosen space. Also, Thomson Corporation owns CDA Weisenberger and, therefore, could potentially provide missing tools, information (e.g., investment data), and services to this site. Thomson also has an established editorial staff that could be utilized more on this site.

Another competitive advantage for Financial-Planning.com is the financial backing of its parent company, Thomson Financial, a subsidiary of Thomson Corporation of Toronto. The following is Thomson Corporation's recent annual revenues:

Revenue (\$ billion)

| | 1996 | 1997 | 1998 |
|---------|-------|-------|-------|
| Thomson | \$7.0 | \$8.0 | \$6.1 |

Source: Wright Investors Service





FPI Live Forum

Knowledge Isn't Just About Power.

Section II: Discipline Site Assessments

Best Practices Assessment

Due to Morningstar's unique position as a provider of objective financial information, it has a stronger brand identity than many of its competitors. Morningstar needs to provide a stronger offering than its competitors in order to maintain the advantage of the Morningstar brand.

The disciplines assessed several direct competitors as well as some non-financial, best-of-breed industry sites to better understand innovative offering components and best practices. Here is a sampling of the best practices and worst practices of some key competitors and other best-of-breed sites.

S

Section II: Discipline Site Assessments: MySAP.com

MySAP.com: Business-to-Business Marketplace

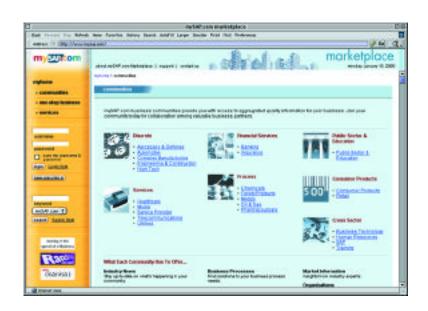
MySAP.com was evaluated to understand and assess a destination site composed of marketplace (community, third party aggregation, news) and workplace (relevant tools and information). MySAP.com is a best-of-breed busines-to-business destination site.

The site is divided into two sections: Marketplace and Workplace.

Content best practices

- Customization: (Workplace section) Information and services including personalized, role-based interfaces; the ability to control access to information and tools; customized desktops accessible from anywhere; document alerts; customizable directory structure; and Drag and Relate feature.
- Personalization: Users may customize a personal home page by selecting industries and topics (e.g., directory, business process information, news, trends, market information, organizations, career, speakers corner, and events).
- Marketplace: Busines-to-business hub for content, community, collaboration, commerce; place orders, issue RFPS, respond to RFPs; business directory that brings together buyers and sellers; business communities; 1-step business; personal information, services and applications that help you run your business.
- 3rd Party Content: Utilization of many third-party services, including job listings, custom content, email, calendar, mailing services, travel arrangements, and time management. Aggregates third- information, tools and content in one place that is relevant to the user's needs.
- Community: Industry-specific or cross-industry communities, each including forum, chat, and links to related content.

- Brand Messages: "Marketplace" helps to convey the aspects of a business community and network. "My" helps personalize the framework.
- Branding Presence: MySAP.com branding is consistently placed in the top left corner of framed pages, with "Marketplace" appearing in the top right.





Section II: Discipline Site Assessments: Healtheon.com

Healtheon.com: An Industry Destination

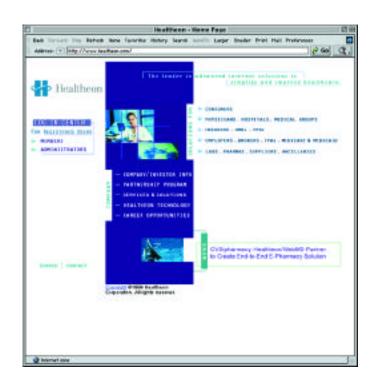
Healtheon.com was evaluated to understand the idea of "marketplace."

This health-related destination serves both consumers and health professionals. The site leverages automated information exchange, transactions and workflow of busy practices (e.g., referrals, claims, billing, managed care), which is in line with some of the ideas for MorningstarAdvisor.com and MorningstarInstitutional.com.

Content best practices

- Customization: Completely customizable site.
- Tone: Helpful, friendly.
- Best Practice: Bringing people together. Making it easy to access vital information and perform tasks.

- Brand Position: For consumers as well as health-care service providers and suppliers, Healtheon.com is the end-to-end Internet company that can simplify and improve the healthcare system and experience.
- Sub-brands and Relationship to Master Brand: Tools are branded with the Healtheon name.



Section II: Discipline Site Assessments: Quicken.com

Quicken.com: A MorningstarAdvisor.com and Morningstar.com competitor

Quicken.com (Intuit) was evaluated to understand how it targets its different audiences online as a reference point for Morningstar's future online presence. Quicken has been successful at leveraging its brand by evolving its financial management portal and product line.

Content best practices

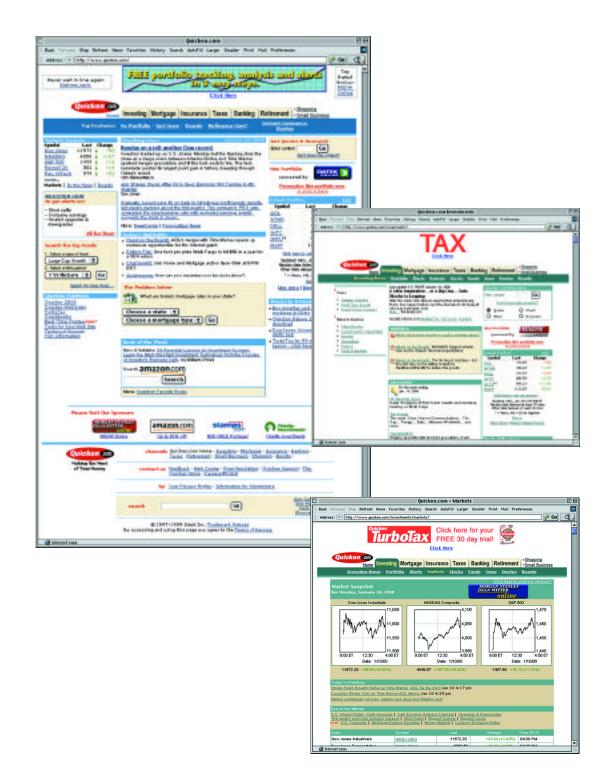
- Consistent Content: Portal-style home page with numerous sections, each featuring advice, industry articles, glossaries, calculators, QuickAnswers, links, promotions for (often free) 3rd-party or Quicken products/services.
- Personalization: personalized portfolio with usercontrolled alerts.
- Community: Eight folders with numerous active topics, including many about various companies. Users can also rate the site's most popular stocks.
- Tone: Efficiency.
- Content: Utilization of third-party content and e-commerce.
- General Best Practice: Editorial/commerce in close connection.
- Customization: Providing information in many slices, so users with every skill level and interest can find clear, relevant information.

Brand best practices

- Brand Messages: In addition to the implicit message conveyed in the brand name "Quicken," the site's tagline (appearing beneath the logo on the bottom of each page), "Making the most of your money," reinforces the brand's thrifty and financially sawy image.
- Brand Character: "The "Wal-mart" of Investment sites. Comprehensive, informative, colloquial, and financially savvy, thrifty, fast is appropriate for their target audience.

Visual design/best and worst practices

• Seemingly long on information but short on space, Quicken.com crams every free area on a page with detail and data. It's useful information, but hard for a novice user or distracted user to find amongst the clutter. Navigation is consistent throughout, though harder to find at lower levels where excessive detail tends to "grey"(or flatten) the page out of focus. Short on imagery, Quicken.com loads fast and offers up a lot of useful information and tools, but may tend to overwhelm the user.





Section II: Discipline Site Assessments: Theknot.com

Theknot.com: A Consumer-Destination Site with An industry Focus

Theknot.com was evaluated to understand an industry "community." This site is very consumer oriented, but we assessed the content from a general user point of view.

Content best practices

- Community: Very active discussions. Members choose titles, but are grouped according to topic.
 Choosing subjects often a good way to get communities going. Have an Improve the Knot board. Chats are led and scheduled.
- Customization: Extremely customizable.
- Content: Original articles by author with subject matter expertise. Bylined only if author is higher-profile.
- Tone: Casually hip, expert, authoritative, good friend, slightly edgy. Fitting to wedding industry audience.
- Content: Takes center stage, but some advertising draws attention away.

Brand best practices

- Sub-brands and Relationship to Master Brand:
 Master brand is The knot, which is an offline and
 online publisher. Theknot.com is the sub-brand for the
 online venture. With the exception of their mediums, the
 two are virtually indistinguishable, sharing the same
 content, visual mnemonics and tonality.
- Branding Presence: The brand name is ubiquitous, nearly chronically so, throughout the site.
- Brand Messages: The tagline "number one wedding resource and gift registry" conveys two things: 1) the site is the leading resource in the category and 2) it is a comprehensive A to Z resource.

The real-world sensibility is conveyed through content tonality.

Visual design best practice

• An undisputed leader in the ever-burgeoning "wedding industry," the Knot.com offers a wide selection of information and tools to aid couples in preparing for and making informed decisions about every step of their wedding process. Reasonably clean and appropriately colored (the section on purchasing an engagement diamond, for instance, has a more masculine overtone), the site maintains a good balance of text and relevant imagery, both photographic and illustrative. Although navigating the site is a bit of a cluttered overload at times, the Knot.com excels at creating a distinctive community, rich in information, personalization opportunities and usable tools, that is flexible enough to accommodate the guests' needs as they change over time.



s

Section II: Discipline Site Assessments: YouDecide.com

YouDecide.com: Individual Financial Empowerment Site

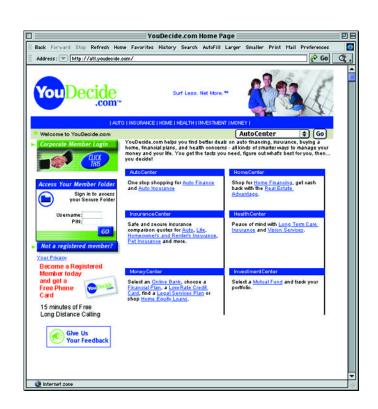
YouDecide.com was evaluated to assess a best of breed "end to end" user solution.

Brand best practices

- Branding Presence: Branding is consistent and unobtrusive throughout site.
- Brand Messages: Brand name "You Decide'" conveys empowerment; easy navigation and all tools throughout the site reinforce that message. Tagline "Surf Less. Net More.'" conveys time-saving, hasslefree and cost-efficient experience.

Visual design best practice

• Offering "all kinds of smarter ways to manage your money and your life," YouDecide.com delivers on its promise in a clean and efficient manner that makes several complicated tasks clearly understandable and easy to do. By iving its information room to breathe with plenty of white space and by going light on the imagery, as well as using a consistent navigation scheme, YouDecide.com gets users to the tools and information they seek quickly, without a lot of fuss and bother. Bright, friendly colors give the site an upbeat feel, which lifts it out the realm of the typical "heavy, corporate" sites that normally deal with these matters of finance and insurance. A personalized "folder" allows guests to track work in progress and helps to ensure that this site will be returned to often.



Section II: Discipline Site Assessments: Financial-Planning.com

Financial-Planning.com: An Advisor Destination

Financial-Planning.com was evaluated to assess a competitive advisor-related destination and "community."

- Branding Presence: Branding is consistent throughout site, appearing on the top center of pages.
- Brand Messages: Brand messages conveyed are consistent with the "informative, helpful, and unifying" brand character. The tagline "helping advisers plan better futures" conveys the helpful message. The easy navigation and straightforward nature of the site add to this. The abundance of news and information on the site communicates the "informative" nature of the brand, while community sections near the top of every page convey the "unifying" message.
- Brand Name: Brand name "Financial-Planning Interactive" conveys that this is a site specifically for financial planners.





Section II: Discipline Site Assessments: Lipper.com

Lipper.com: An Institutional Powerhouse

Lipper was evaluated as a direct competitor to Morningstar.

- Sub-brands and Relationship to Master Brand: The Lipper Funds, Inc., is the master brand. All funds are branded with the Lipper name and a descriptive title (e.g., The Lipper U.S. Equity Fund).
- Brand Character: The brand character of "Upscale, prestigious, poised, sophisticated, trustworthy" is appropriate for the site's target audience.





Section II: Discipline Site Assessments: SchwabInstitutional.com

SchwabInstitutional.com

SchwabInstitutional.com was evaluated as a direct competitor to Morningstar.

- Sub-brands and Relationship to Master Brand:
 Charles Schwab is the master brand. Schwab
 Institutional is the division that targets the institutional
 and advisor audiences, and SchwabInstitutional.com
 is its Web destination. Individual investors use
 Schwab.com (also accessible with the URL
 CharlesSchwab.com).
- Sub-brands and Relationship to Master Brand:
 Products and services are branded with the Schwab name, and a description of the tool or service (e.g., Schwab Access™, Schwab MoneyLink™ and The Schwab Fund for Charitable Giving™). All brand names are trademarked.
- Sub-brands and Relationship to Master Brand:
 Schwab Institutional also offers the Schwab
 Signature Services Alliance™, a premium service for advisors' "most valued clients." It includes a customized web site and a specialized service team.
- Brand Messages: Connected, practical, direct.
- The tagline "Experience. Dedication. Solutions." that appears on every page conveys the Schwab Institutional brand.
- Branding Presence: Discrete. Consistently used within the institutional site, but different in execution from the Schwab branding on the retail site.



Section II: Discipline Site Assessments: CDA Wiesenberger

CDA Wiesenberger InvestmentView.net and Blueprint

CDA Wiesenberger was evaluated as a direct competitor to Morningstar that is moving some of its products online.

Brand best practice

• Brand Messages: Wiesenberger makes tools and blueprints for investing. Modest tonality and branding convey brand's conservative approach.

Information architecture best practices

- Value of Product Communication: The value of the product is communicated through the navigation, which is named according to parts of the asset allocation process.
- Experience: The feature set of the product is "current state input", "risk tolerance", and "presentation tools" including charts and tables. The user experience of the product is active.
- Site Organization: Step-by-step organization based on asset allocation process. This organization follows the workflow.

Information architecture worst practices

- Intent of the Product: To be used as a conduit for professional investors to understand the individual investor's tolerance for risk. The intent is communicated through the marketing literature, but should also be obvious from the structure or the content of the product.
- Windows Implementation: It's not optimized. The flow through the process is not explicitly communicated user is not walked through.



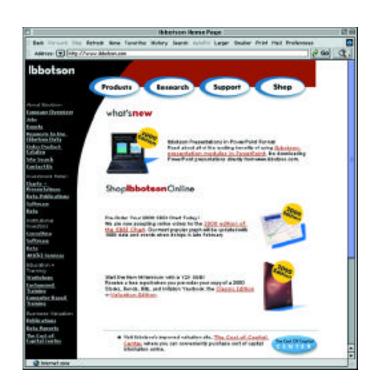
Section II: Discipline Site Assessments: Ibbotson.com

Ibbotson.com

Ibbotson was evaluated as a direct competitor to Morningstar, focusing on its use of its master brand.

Brand best practice

• Sub-brands and Relationship to Master Brand: Ibbotson.com is the online sub-brand of master brand Ibbotson & Associates. Many of Ibbotson's products are branded with the Ibbotson name, followed by trademarked functional descriptors.



Visual Design General Best Practices

While no single site serves as an absolute standout by doing everything right, some important lessons can be drawn from looking at these sites. Most important, it seems, the key to having a successful site is high-quality information and tools - that attract users. And, when users are at your site, it is important to not overwhelm them with too much information at one time. Appropriate colors and imagery will help steer the user experience and reinforce a sense of belonging with the site, which in time may grow into a sense of community.



Appendix D

Content Assessment

Content Assessment

Content Assessment

During the Site Strategy project, Content Strategy assessed Morningstar's existing content resources and brainstormed with the team to identify and define potential features for MorningstarAdvisor.com and MorningstarInstitutional.com. This section evaluates high-level content needs for the sites and makes general recommendations about how that content should be created.

Throughout a project, Content Strategy works with clients to uncover opportunities to provide well-branded, user-focused content; set up processes to create content for launch and post-launch; and develop style guidelines to ensure that content consistently expresses a client's voice, is targeted to its customers, and supports its business objectives.

Having clear, well-organized content, and easy-to-find, consistently-presented information gives customers good reason to use the sites regularly. Content will provide Morningstar with real differentiation from other financial information resources.

Content standards for the Web

While preparing content for MorningstarAdvisor.com and MorningstarInstitutional.com, Morningstar's editorial staff must be familiar with general Web writing standards. As a rule, all Web sites should adopt a conversational and straightforward voice, using short sentences and active voice. This voice must complement Morningstar's voice in other media and be consistent throughout the site. Additionally, content should be organized into short groupings with clear, useful headings that customers can easily scan or read on screen. These principles will reinforce

MorningstarInstitutional.com's credibility and reliability, making it a trusted online source for financial information and products.

Write for the space. People only scan when they're reading from a screen.

- Users do not respond to heavy blocks of text or copy that demands excessive scrolling.
- People read 25% slower online. Write half as much as you would for other media.
- Users rely on bullet points, subheadings, and other visual cues to make information more manageable.

Write for the task-oriented user. Users should immediately know that they will be able to find what they need in a timely manner.

Be conscious of the order of information. Don't bury important information at the bottom of an article or bullet-pointed list. Think journalism: "conclusion" first, then supporting information.

Cut material that is repetitive or unnecessary. This is more than just a space consideration. Repetition itself can feel condescending.

Write clear, concise headlines and subheads. This lets readers know at a glance what they can expect from each section and subsection. Headings should be descriptive. Catchphrases and word plays are useful only if they are meaningful.



MorningstarAdvisor.com Content Assessment

MorningstarAdvisor.com

As defined in the brand strategy, Morningstar will communicate the following clear, crisp, and universal message to advisors on MorningstarAdvisor.com:

MorningstarAdvisor.com is the comprehensive online resource and dynamic community that enables advisors to conduct and grow their business efficiently.

This message will be delivered through a sound content strategy. The following are our content strategy recommendations for MorningstarAdvisor.com.

How MorningstarAdvisor.com should "sound" online

Morningstar's primary communication with its advisor customers has traditionally been through the exchange of quantitative information. The challenge of MorningstarAdvisor.com is to maintain Morningstar's online credibility with this audience in a new medium.

Advisors are a more knowledgeable audience than individual investors, and they don't want to be spoon-fed information. The content for MorningstarAdvisor.com should be written specifically for the advisor audience; the site should not rely only on recycled analyses and columns from Morningstar.com. By integrating quality content sources in a professional and informative way, MorningstarAdvisor.com can educate financial advisors about issues of importance both to them and to their customers.

Tone

Effective Web writing rests on three basic imperatives:

- Be clear.
- Be respectful of users.
- Understand the objectives and voice of the site.

All the rest is commentary:

- Be consistent. Maintain consistency in nomenclature, tone, and language across the site.
- Be brief. Text on screen is less inviting than text on the page, and users have short attention spans.

Short sentences hold users' interest and generally provide clearer information.

- Be active. Use active language and sentence structure: Don't write: "Active verbs and sentences should be used;" write: "Use active verbs and sentences."
- Resist rhetorical questions. Use rhetorical questions judiciously.
- Keep users on task. Choose language that prompts users and offers clear guideposts along a "path to action."

Through its tone, the site must clearly and consistently communicate key desired attributes of the MorningstarAdvisor.com brand:

- Independent
- Comprehensive
- Utilitarian
- Unifying
- Complete

Independent

MorningstarAdvisor.com must maintain and build on Morningstar's reputation as an information source that presents true, unbiased information about funds, stocks, and companies. Therefore, Morningstar information must be kept separate from information that comes directly from institutions, and information from institutions must be clearly labeled.

Comprehensive

As the financial marketplace grows and fragments, there will be increasing amounts of information to present. Advisors will expect MorningstarAdvisor.com to deliver all of it in the future, just as Morningstar.com does now for individual investors. MorningstarAdvisor.com should maintain a variety of columnists and authors who bring different experiences, unique focuses, and industry expertise.

Utilitarian

Advisors do not have time to browse around MorningstarAdvisor.com at a leisurely pace; they want to perform their desired functions quickly and get back to their business. Therefore, the functions that advisors can perform using MorningstarAdvisor.com should be accessible with minimal clicks. Similarly, the site's content should reflect a to-the-point tone.

Unifying

MorningstarAdvisor.com will become the central online source for financial advisors if it offers a significant portion of the resources advisors need. Foremost among these needs is current information: timely news and frequently updated data. In addition to this "hard" information, advisors will be able to turn to MorningstarAdvisor.com for education and training tools that help make their jobs easier.

Complete

As the primary source for financial information, Morningstar draws every member of the financial community.

MorningstarAdvisor.com can take advantage of that fact by, over time, building in robust community features, enabling advisors to interact with Morningstar and communicate with one another. User-generated content should be kept separate from content written by Morningstar analysts, to maintain Morningstar's authority.

MorningstarAdvisor.com voice attributes

The following voice attributes are consistent with the brand directives and are recommended for all content on the site:

- Authoritative (but not preachy).
- Clever, intelligent.
- Provocative, stimulating.
- Innovative, fresh, and timely.
- Discerning, sophisticated



MorningstarAdvisor.com Content Assessment

Creating and organizing content on MorningstarAdvisor.com

Advisors come in all shapes and sizes, and with a range of preferences and needs. The content that Morningstar selects for MorningstarAdvisor.com should reflect this desire for flexibility, both in its presentment and in its substance.

Organize site content around customer needs

Users want a personal experience on MorningstarAdvisor.com, to feel that it is an integral part of their business. The site can deliver this experience by organizing the content according to advisors' activities.

MorningstarAdvisor.com should "surface" content that is useful to advisors, dynamically serving relevant articles, links, postings, and advertisements. Content should clearly walk advisors through the steps of their business activities—research, recommend, support.

Build loyalty by making advisors look informed and knowledgeable

Advisors need to see MorningstarAdvisor.com as an invaluable resource for their work. The site must not only inform them, but allow them to inform their clients. Cobranded newsletters that advisors can tailor to their customer base are just one example of how the site can facilitate advisors' work processes. Other ideas include a library of articles from Morningstar.com, grouped by topic, that advisors can package and send to clients quickly, illustrating top-notch customer service.

Refresh content regularly and often

MorningstarAdvisor.com will be a content-heavy site. To remain useful to its audience, and therefore viable, Morningstar will need to refresh content on a regular basis. This gives advisors a reasons to come back again and again. Eventually, they should begin to recognize Morningstar as their number one source, not only for data, but for all the information and tools they need to support their work.

Give the "why," not just the "what"

Advisors are busy. Really busy. On top of gathering and presenting information to clients, they also have to justify

their recommendations and explain market ups and down. That's why Morningstar should provide information about why things happen in the market. Additionally, this information should be as close to related data as possible, so that it provides interesting, supportive context.



MorningstarAdvisor.com Content Matrix

Fulfilling content creation needs

Sapient anticipates that several types of content will be included on MorningstarAdvisor.com. Here is a list of those content types, along with guidelines for using the content on MorningstarAdvisor.com. Morningstar can use the list of content types below to begin sourcing (creating, buying, forming partnerships with third parties) this content. It will take time to collect and/or repurpose appropriate content for advisors. Sapient will work with the editorial staff of MorningstarAdvisor.com to craft a detailed plan for creating and/or obtaining this content.

| Content Morning | gstarAdvisor.com | | |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| CONTENT TYPE | DESCRIPTION | SOURCE | RECOMMENDATION |
| EDITORIAL Targeted to | the audience and expresses a point of view. | | |
| Editorial | Articles and Analysis | Morningstar.com | Select appropriate columns for reuse on MorningstanAdvison.com |
| | | Third Parties | Contract with 3rd parties who provide editorial information targeted to advisors |
| | | Original content | Employ Morningstar authors to create content specifically targeted to advisors. |
| | News | Morningstar Newswire | Reuse Morningstar Newswire content on Morningstar Advisor.com |
| | | Third Parties | Expand contracts with parties that Morningstancom currently uses, to include using that content on MorningstanAdvisor.com |
| | Fund Spotlight | Principia | Currently a feature provided on Principia CDs. Revise process to incorporate reusing these articles online. |
| | MMF Category Overviews | Principia | Currently a feature provided on Principia CDs. Revise process to incorporate reusing these articles online. |
| | MMF Summary Sections | Principia | Currently a feature provided on Principia CDs. Revise process to incorporate reusing these articles online. |
| | Fund Changes, Stock Changes, etc. | Principia | Currently a feature provided on Principia CDs. Revise process to incorporate reusing these articles online. |
| | | | This information should be easy to access from an investment detail page. |
| STATIC Textual content to | hat changes infrequently and usually expresses | facts about the company or the site. | |
| Static | Customer service | Original content | |
| | Corporate Information Press releases Job listings Company profile International pertnerships information Product information | Morningstar.com, Principia, original content | Link to Marningstancom for this information. Or, if appropriate, repurpose for advisors. |
| | Morningstar contact information | Morningstar.com or original conten | t Link to Marningstancom for some information. Or, if appropriate, repurpose for advisors. |
| | Legal information | Original content | Repurpose any existing collateral. Legal information should be detailed enough to allay advisors' concerns. |
| DATA PRESENTMEN | NT Guantitative content whose presentation ma | ust be closely considered, but which is u | sually dynamically generated. |
| Data Presentment | Quicktakes/Snapshots | Principia | Need to consider presentment |
| | Alerts | Third Parties | Need to consider presentment |
| | | Morningstar Products Process changes Errors Etc. | Need to consider presentment |
| | | Automatic Practice-level Client-level Portfolio-level Hotding-level | Need to consider presentment |
| | Reports | Principia | Need to consider presentment |
| | Views (fund, stock, etc.) | Principia | Need to consider presentment |
| | Graphs | Principia | Need to consider presentment |
| | Morningstar page PDFs | Principia | Need to consider presentment |
| | Risk/Goal assessment questionnaires | Original content | Can probably create from existing Morningstar resources |
| | | | |



MorningstarAdvisor.com Content Matrix

| | i | | |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| CONTENT TYPE | DESCRIPTION | SOURCE | RECOMMENDATION |
| | ages direct communication between users or an | | |
| Community | Virtual Trade Show | Third parties | Bevelop quidelines for the types of information to be submitted |
| , | Job listings | Advisors | Need to consider presentment |
| | | | Develop guidelines for the types of information to be submitted |
| | | Third parties | Need to consider presentment |
| | | | Develop guidelines for the types of information to be submitted |
| | Advisor editorial White papers Analysis Articles | User-generated | Develop guidelines for the types of information to be submitted |
| | Ratings Funds Stocks Etc. | User-generated | Track both individual advisors' ratings and aggregated ratings |
| | Opinion polls | Morningstar | Shoud appear at least weekly |
| | Chats/discussions with guest speakers | Morningstar would provide the forum and the "speaker." The "speaker" and the users would do the rest. | Speakers could be institutional representatives, "star" advisors, newsmakers, etc. |
| | Calendar of events | Morningstar/advisors | Postings of advisor-related events around the country. |
| | Article library | Morningstar.com | Archive of Morningstancom erticles that advisors could send to their clients. |
| | | | Articles need to be searchable. |
| EDUCATIONAL Provi | des learning opportunities related to the users | work. | |
| Educational | Practice management • Morningstar investment methodology • Educational articles • Technical reviews • Best practices • Compliance | Click 2 Learn | Further define what subjects will be covered |
| | | Morningstar original content | Further define what subjects will be covered |
| | Distance learning courses | Click 2 Learn | Further define what subjects will be covered |
| HELP Provides assistano | e in using tools and features of the site. | | |
| Help | Glossary FAQ Etc. | Original content | Should be specific to the site and written in a tone appropriate for advisors |
| | Process macros/wizards | Original content | Contextual performance support |
| | | | ldientify appropriate format and subjects for this content |
| | | | |
| | | | |

MorningstarAdvisor.com Content Matrix

| CONTENT TYPE | DESCRIPTION | 5 DURCE | RECOMMENDATION | |
|---------------------------------|-----------------------------------------------------------------------------------------------------------------|------------------|--------------------------------------------------------------------------------------|--|
| OTHER Content elements that are | OTHER Content elements that are standard on most sites, but which do not fall easily into the other categories. | | | |
| Other | Advertisements | Third parties | Consider how prominent this info should be so that advisors are comfortable with it. | |
| | | | Consider the types of aids that advisors are comfortable with. | |
| | Promotional content | Morningstar | Consider how prominent this info should be so that advisors are comfortable with it. | |
| | | | May be distributed through several mechanisms. | |
| | Navigational/Instructional content | Original content | Create after information architecture is complete | |
| | Advertisements | Original content | Should be consistent with brand strategy | |
| | | | Create after information architecture is defined. | |
| | Profile Site user profile Account profile | Original content | Betermine what information will be requested from the user | |
| Content MorningstarAdvisor.com | | | | |

MorningstarAdvisor.com Content Assessment

High-level staffing recommendations

Maintaining a site as dynamic as MorningstarAdvisor.com can be intensive. Morningstar will want to begin early in forming its editorial team and setting up processes for creating content. As MorningstarAdvisor.com enters the design phase, Sapient recommends that Morningstar begin interviewing and hiring those employees who will maintain the site. It is advisable that the following roles be filled as soon as possible, in the following order of priority, so that these individuals can be involved in the design process:

Editor-in-chief

Responsible for carrying out the vision of the site. Manages the day-to-day maintenance and creation processes. Must be proficient in using the Web. Should thoroughly understand the needs of the advisor audience and Morningstar's business goals.

Writer (2)

One responsible for working on the "community" track; another working closely with the "tools" track. Responsible for creating and updating all copy posted to the site. Must have a strong understanding of the Web medium, have a solid understanding of the site's voice, must be able to product copy on a deadline, and understand the content management package.

Editor (2)

One responsible for working on the "community" track; another working closely with the "tools" track. Responsible for ensuring that all copy meets established spelling, formatting, grammatical, and contextual standards. Must be able to deliver high-quality work under tight deadlines, have a strong understanding of the Web medium, and thoroughly understand the site's goals and objectives.

Content Manager

Responsible for maintaining all functionality associated with the content management system, including content syndication, banner ad refreshes, site refreshes, personalization and customization decision support, content workflow management, content archiving, ad serving, and customer lifecycle analysis. Depending on the complexity of

the content management system, MorningstarAdvisor.com and MorningstarInstitutional.com may be able to share this resource.

About work flow

A streamlined process of content creation, editorial oversight, approval, and handoff, is critical for a sustainable site.

MorningstarAdvisor.com will need to establish a centralized editorial oversight team who can:

- Manage work flow.
- Draw concrete boundaries of content ownership.
- Measure content against site objectives, marketing priorities, and voice guidelines.



MorningstarInstitutional.com Content Assessment

MorningstarInstitutional.com

As defined in the brand strategy, Morningstar will communicate the following clear, crisp, and universal message to institutions on MorningstarInstitutional.com:

For investment research and marketing managers, MorningstarInstitutional.com is the dynamic online data and analysis resource that enables customers to perform their research and marketing efforts efficiently, effectively, and with credibility.

This message will be delivered through a sound content strategy. The following are our content strategy recommendations for MorningstarInstitutional.com.

How MorningstarInstitutional.com should "sound" online

Morningstar's primary communication with its institutional customers has traditionally been through the exchange of quantitative information. The challenge of MorningstarInstitutional.com is to maintain Morningstar's online credibility with this audience in a new medium.

Tone

Effective Web writing rests on three basic imperatives:

- Be clear
- Be respectful of users
- Understand the objectives, voice, and ethos of the site

All the rest is commentary:

- Be consistent. Maintain consistency in nomenclature, tone, and language across the site.
- Be brief. Text on screen is less inviting than text on the page, and users have short attention spans. Short sentences hold users' interest and generally provide clearer information.
- Be active. Use active language and sentence structure: Don't write: "Active verbs and sentences should be used;" write: "Use active verbs and sentences."
- Resist rhetorical questions. Use rhetorical questions judiciously.

• Keep users on task. Choose language that prompts users and offers clear guideposts along a "path to action."

Through its tone, the site must clearly and consistently communicate key desired attributes of the MorningstarInstitutional.com brand:

- Comprehensive
- Independent
- Flexible
- Expedient
- Quality

Comprehensive

MorningstarInstitutional.com offers both breadth and depth of timely, up-to-date data and the tools to manipulate it. This keeps institutional customers informed and enables them to conduct research and marketing efforts effectively. MorningstarInstitutional.com should include increasing amounts of content from a variety of perspectives.

Independent

MorningstarInstitutional.com must maintain and build on Morningstar's reputation as an information source that presents true, unbiased information about funds, stocks, and companies.

Flexible

Investment research and marketing managers have varying information needs. They want data that is customizable and easy to access and use, so they can get exactly the data they want, how they want it and when they want it.

Expedient

Investment research and marketing managers want to use MorningstarInstitutional.com for specific functions, and they should be able to access the relevant data with minimal clicks. The content on MorningstarInstitutional.com must support these information needs, and not block the information-gathering process. Its tone should be brief and to-the-point.

Quality

Investment research and marketing managers rely on Morningstar for data they can trust. By being delivered over the Web, MorningstarInstitutional.com's information is more timely than ever before, and that fact should be promoted widely throughout the site.

Morningstarinstitutional.com voice attributes

The following voice attributes are consistent with the brand directives and are recommended for all content on the site:

- Authoritative (but not preachy)
- Direct, frank
- Through, extensive
- Natural, conversational
- Objective, sensible

Creating and organizing content

Facilitate the information-gathering experience
Customers should be provided with a seamless path through which they acquire information. Content should guide the experience; extraneous text should be avoided. Content should be organized intuitively and link to related content to enhance the user experience, not just because the mechanism is available. Although hyperlinking is the foundation of this medium, if used improperly, it can frustrate and alienate users. At its core, it should support user flows and thought processes.

Use content to guide users through the site

Navigational nomenclature should be clear, consistent,
accurate, and reflective of the information within the category
it describes. Customers should be able to find the information
intuitively. Headings should be informative and unambiguous.
They should act as cues that help customers make choices
about what they want to read.

MorningstarInstitutional.com Content Matrix

Fulfilling content creation needs

Sapient anticipates that several types of content will be included on MorningstarInstitutional.com. Here is a list of those content types, along with guidelines for using the content on MorningstarInstitutional.com. Morningstar can use the list of content types below to begin sourcing (creating, buying, forming partnerships with third parties) this content. It will take time to collect and/or repurpose appropriate content for advisors. Sapient will work with the editorial staff of MorningstarInstitutional.com to craft a detailed plan for creating and/or obtaining this content.

| DESCRIPTION | SOURCE | |
|---------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | SOURVE | RECOMMENDATION |
| audience and expresses a point of view. | | |
| News | Morningstar Newswire | Reuse Morningstar Newswire content on MorningstarInstitutional.com. |
| | Third Parties | Expand contracts with parties that Morningstancom currently uses, to include using that content on Morningstanhstitutional.com. |
| Fund Spotlight | Principia | Currently a feature provided on Principia CDs. Morningster needs to revise process to incorporate reusing these articles online. |
| MMF Category Overviews | Principia | Currently a feature provided on Principia CDs. Morningstar needs to revise process to incorporate reusing these articles online. |
| MMF Summary Sections | Principia | Currently a feature provided on Principia COs. Morningstar needs to revise process to incorporate reusing these articles online. |
| Fund Changes, Stock Changes, etc. | Principia | Currently a feature provided on Principia CDs. Morningstar needs to revise process to incorporate reusing these articles online. |
| | | This information should be easy to access from an investment detail page. |
| hanges infrequently and usually expresses f | acts about the company or the site. | |
| Customer service | Original content | |
| Corporate Information • Press releases • Job listings • Company profile • International partnerships information • Product information | Morningstar.com, Principia, original content | Link to Marningstan.com for this information. Or, if appropriate, repurpose for users. |
| Morning star contact information | Morningstar.com or original content | Link to Marningstancom for some information. Or, if appropriate, repurpose for users. |
| Legal information | Original content | Repurpose any existing collateral. Legal information should be detailed enough to allay users' concerns. |
| Quantitative content whose presentation mu | st be closely considered, but which is usu | ally dynamically generated. |
| Snapshots | Principia | Consider presentment |
| Alerts | Third Parties | Consider presentment |
| | Morningstar Products Process changes Emors Etc. | Consider presentment |
| | Automatic Practice-level Client-level Portfixiio-level Holding-level | Cansider presentment |
| Reports | Principia | Consider presentment |
| Views (fund, stock, etc.) | Principia | Consider presentment |
| Graphs | Principia | Consider presentment |
| Morningstar page PDFs | Principia | Consider presentment |
| Risk/Goal assessment questionnaires | Original content | Can probably create from existing Morningster resources |
| | Fund Spotlight MMF Category Overviews MMF Summary Sections Fund Changes, Stock Changes, etc. bionges infrequently and usually expresses for Customer service Corporate Information Press releases Job listings Company profile International partnerships information Product information Morningstar contact information Legal information Quantitative content whose presentation may Snapshots Alerts Reports Views (fund, stock, etc.) Graphs Morningstar page PDFs Risk/Goal assessment | News Morningstar Newswire Third Parties Fund Spotlight Principla MMF Category Overviews Principla MMF Summary Sections Principla Fund Changes, Stock Changes, etc. Principla Fund Changes, Stock Changes, etc. Customer service Original content Corporate Information Press releases I do listings Company profile International partnerships information Product information Morningstar contact information Legal information Cushitative content whose presentation must be closely considered, but which is usu Snapshots Principla Alerts Third Parties Morningstar Products Practice-level Client-level Client-level Client-level Holding-level Reports Principla Views (fund, stock, etc.) Principla Morningstar page PDFs Principla Risk/Goal assessment Original content |



MorningstarInstitutional.com Content Matrix

| CONTENT TYPE | DESCRIPTION | SOURCE | RECOMMENDATION | |
|--------------------------------------|-------------------------------------------------------------------|------------------------------------------|-----------------------------------------------------------------------------------|--|
| HELP Provides assistance in using | HELP Provides assistance in using tools and features of the site. | | | |
| Help | Glossary FAQ Etc. | Original content | Should be specific to the site and written in a tone appropriate for users | |
| | Process macros/wizards | Original content | Contextual performance support | |
| | | | Identify appropriate format and subjects for this content | |
| OTHER Content elements that are | standard on most sites, but which do no | t fall easily into the other categories. | | |
| Other | Advertisements | Third Parties | Consider how prominent this info should be so that users are comfortable with it. | |
| | | | Consider the types of ads that users are comfortable with. | |
| | Promotional content | Morningstar | Consider how prominent this info should be so that users are comfortable with it. | |
| | | | May be distributed through several mechanisms. | |
| | Navigational/instructional content | Original content | Create after information architecture is complete | |
| | Site nomenclature | Original content | Should be consistent with brand strategy | |
| | | | Create after information architecture is defined. | |
| | Profile Site user profile Account profile | Original content | Determine what information will be requested from the user | |
| Content MorningstarInstitutional.com | | | | |

MorningstarInstitutional.com Content Assessment

High-level staffing recommendations

As MorningstarInstitutional.com enters the design phase, Sapient recommends that Morningstar begin interviewing and hiring those employees who will maintain the site. It is advisable that the following roles be filled as soon as possible, in the following order of priority, so that these individuals can be involved in the design process:

Editor-in-chief/Product Manager

Responsible for carrying out the vision of the site. Manages the day-to-day maintenance and creation processes. Must be proficient in using the Web. Should thoroughly understand the needs of the institutional audience and Morningstar's business goals.

Writer

Responsible for creating and updating all copy posted to the site. Must have a strong understanding of the Web medium, have a solid understanding of the site's voice, must be able to product copy on a deadline, and understand the content management package.

Content Manager

Responsible for maintaining all functionality associated with the content management system, including content syndication, banner ad refreshes, site refreshes, personalization and customization decision support, content workflow management, content archiving, ad serving, and customer lifecycle analysis. Depending on the complexity of the content management system, MorningstarAdvisor.com and MorningstarInstitutional.com may be able to share this resource.

About work flow

A streamlined process of content creation, editorial oversight, approval, and handoff, is critical for a sustainable site.

MorningstarInstitutional.com will be need to establish a centralized editorial oversight team who can:

- Manage work flow.
- Draw concrete boundaries of content ownership.
- Measure content against site objectives, marketing priorities, and voice guidelines.

Appendix E

Principia Pro Assessment



Principia Pro Assessment

What is Principia Pro?

Principia Pro is a windows application, similar to a Web browser. Principia exists on a user's hard drive or local area network. The user experiences the application exactly as the developer intended. Interactions with other systems or factors outside the developer's control generally do not impact the performance of the system. Principia's "PC Experience" is characterized by the following:

- User system processor speed is the only system constraint. This constraint is under the control of the end user.
- Mode-driven application controls where the use can go and what the user can do at any given time.
- System interactions and responses are synchronous and relatively instantaneous.
- Low-level, event-driven system interactions, such as right clicking objects and displaying cascading menus, occur with minimal user interaction.
- User can directly manipulate objects, for example, by clicking and dragging.
- Once written, a single code can run under several different environments.

What does it do?

Principia Pro has two functions:

- Investment research
- Portfolio creation

How does it do it?

The focus of the Principia experience is the data it contains. Users view the data, graph the data, and create portfolios from the data.

Deep navigational structure

Principia has a very deep navigational structure. Using Web terms, Principia has six levels of navigational systems:

Application navigational system

- Mode navigational system (research and portfolio)
- Investment navigation system (mutual funds, stocks)
- Views navigational system (portfolios)
- Subview navigational systems (portfolios)
- Investment data navigation system (investment detail)

There are two primary modes of user interaction:

- Research mode
- Portfolio mode

These two modes subsume other site functionality and features.

Direct indirection

Its lack of highly hierarchical, directly focused user paths through the system makes Principia a powerful and flexible tool. Users can achieve some functions through multiple paths in the application.

Depending on the mode the user is in, the element being displayed, and the object the user has clicked on, menu options appear and disappear. This makes it very difficult to understand what features the product actually contains and how to access them.

For example, the user may want to "compare" investments. Several functions in Principia allow users to compare investments (graphs, benchmarks, reports, and searches on data elements, such as Morningstar ratings). Since these functions are not organized in a way that reveals the intent of the functions, users can become confused. Another example is the graphing of investments. If users have not selected any investments and click on the graph button, they are told that they must perform a search first, but no direction on how to execute the search is given.

Linear interactions

Actions within Portfolio mode are linear (end to end). Principia does not take into account non-linear activities that the user might want to perform, nor does it consider user intent.

In order to compare investments across universes, for example, users must create a portfolio and add holdings. The user can then choose to graph or generate reports based on the investments.

What works?

- Search mechanism lets users create customized search criteria on data points that are important to them.
- Application provides several ways to look at and compare investment data.

What does not work?

- Search syntax is complex and confusing.
- The interface does not make apparent or clearly describe the actual intent of functions and the value these functions offer.

Tradeoffs—Transferring Principia to the Web

The implementation of aspects of advisor and institutional workflow on the Web presents unique challenges, including

- Transforming a highly specialized Windows application into an effective and engaging Web experience.
- Transforming a small, procedural experience into an end-to-end, customizable experience centered around work.

Web experience

Unlike traditional applications, on the Web the browser is the desktop. Sites exist within the browser, but the browser has dominant control. Other differences with Web experience include

• Experience is constrained by bandwidth and other systemic constraints outside of the user's control.



Principia Pro Assessment

- Experience is page-driven. The user controls the navigation through pages and can take paths that were never intended by the designer. Users can enter and leave experience through several avenues without the notifying the system (exit the site by minimizing browser windows, enter the site using bookmarked pages other than the home page).
- "Call and response" system interactions submit and receive communications with a visible feedback lag time (asynchronous).
- As a result of call and response system interactions, direct manipulation of objects is impossible unless non-traditional Web technologies are used (manipulation requested must be submitted).
- Code must be written many times to support multiple platforms, multiple browsers, multiple plugins, and multiple scripting languages.

Traditional Web experiences

Traditionally, the Web has been successful with the following user experiences:

- Communication experiences—bulletin boards
- Content delivery experiences—viewing pages, searching
- Transactional experiences—e-commerce applications

Customizable "work" experiences

The development of MorningstarAdvisor.com and MorningstarInstitutional.com is a fundamental shift in what the Web is traditionally used for. The focus of the experience will not be the data, it will be the work that site users need to perform. The data is a conduit to complete this work.

In everyday experience, this work is inherently

- Non-linear—users do not complete every step in a process from beginning to end; there will be stops and starts throughout.
- Simultaneous—users work on more than one thing at a time.

- Predictable—work is done at regular intervals.
- Spontaneous (unpredictable)—new work may interrupt current work.

The work includes the following operations:

- Searching for information
- Viewing information
- Creating and manipulating information—graphs, asset allocations
- Managing information
- Exchanging/delivering information

As a result, the experience we create needs to be appropriate for the Web media and the user, and must take the following into account:

- Intent of use for activities
- Frequency of use
- All possible entry points and exit points for activities
- The level of direction the user will need to complete work
- The amount of flexibility the user will need to make the experience effective for them

In order to be successful, we need to provide representations that users prefer more than the systems they traditionally use. More specifically, we will need to create an experience that

- Minimizes "call and response" interactions
- Allows users to manage multiple activities at the same time
- Allows users to move from one activity to another quickly and without disturbing other activities they may be performing in the same site



Appendix F

Front-End Technology Benchmark

Front-End Technology Benchmark

Introduction

The Morningstar advisor and institutional web sites will attract users in the corporate environment. The user interface should be developed to leverage the advanced capabilities of client-side technologies available to users in the corporate environment. Today's Internet users demand an elegant and intuitive design. The Morningstar advisor and institutional Web sites will meet this expectation to provide differentiation within the market.

Leveraging the advanced capabilities of contemporary browsers means applying current technology, such as cascading style sheets and DHTML. These technologies help to achieve innovative and sophisticated interfaces that enhance the overall user experience and support the Morningstar's goals of implementing robust tools and building community through the advisor and institutional web sites.

Assumptions

- Implementation of the user interface must achieve excellence to differentiate Morningstar's offering in a highly competitive and crowded market.
- Presentation will be accomplished through the use of a content management system that will generate dynamically populated pages and apply predefined styles. Separating content from presentation using a CMS application allows for increased flexibility in updating and maintaining a complex and contentrich web sites.
- Appropriate technology will be applied to presentation challenges, with consideration to the balance of target market technology capability and the requirements in achieving "best of breed" in the elegance of user interface.
- The ubiquity of MSIE 5 as a standard browser, already at 24% in August of 1999, will be significantly higher by the anticipated site launch than indicated in current statistics. Microsoft browsers continue to gain market share and this growth reflects new installations of MSIE 5.

Based on research provided by Morningstar and other sources regarding client operating system and processor speed, the target client platforms will be Windows 95, 98, and NT workstation running on a Pentium class processor. Macintosh and Unix platforms will be considered nonstandard implementations of the advisor and institutional Web sites. There may be an alternative set of criteria for testing and acceptance for these platforms.

Sources

The front-end technical benchmark is based on several sources of information that comprise a comprehensive technical profile of Morningstar advisor and institutional site users. The profile was used to develop recommendations for front-end technical benchmarks that will be used to guide development of the user interface. These recommendations will be further validated through a survey of Morningstar client technology platforms.

The sources are:

- StatMarket
- Zona Research
- Forrester reports
- Macromedia
- Morningstar-provided information



Recommendations - Benchmark Profile

The profile described below represents the model implementation that will be used to guide development of the user interface.

- Browser: MSIE 4.0 and higher
- Optimal implementation will be considered MSIE5.
 This means that some features specific to MSIE5 will be implemented, with the constraint that none of these features degrade performance on other browsers.
- HTML: Version 4.0
- Operating systems: Microsoft Windows 95, 98, NT4
- Screen resolution: 800 x 600
- Screen colors: 16-bit color palette
- Connectivity: 28.8K modem or higher
- Page weight: Target will be under 70K
- Download time: Estimated at 3K per second on a 28.8 modem
- Plugins: Acrobat Reader and Flash will be required to take full advantage of site functionality
- JavaScript: JavaScript 1.2 will be used to create dynamic presentations and to perform client-side functions as required to interact with server-side applications

What does this mean?

- All anticipated functionality will be implemented according to specification using this client technology profile as a guideline.
- Provides an enhanced user experience with more robust functionality.
- Some users may have to upgrade or use an alternate browser.
- These requirements must be communicated in subscription information distributed by Morningstar.

Front-End Technology Benchmark Web Browsers

Web browsers

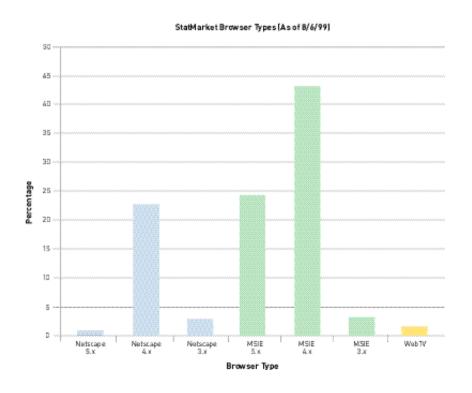
Anticipating the array of technical capabilities of the site's subscribers is essential to ensuring that key design and development decisions support the target population.

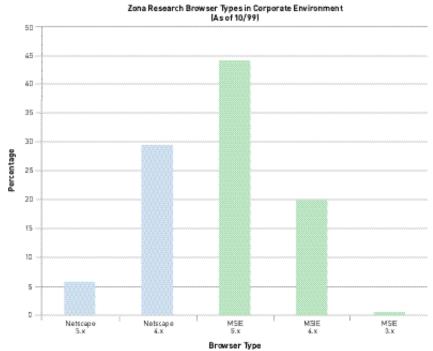
Sapient gathered data from three sources regarding browser usage. These included StatMarket, Zona Research, and Forrester reports.

Summary of data

- A StatMarket report from August 1999 reported that 92% of all U.S. internet users browsed with version 4 or higher
- A survey conducted by Zona Research in October 1999 found that 99% of browsers used at work are version 4 or higher.
- The same Zona survey of corporate Internet use reported that 73% of respondents indicated that a policy regarding a browser standard was enforced.
- Of those respondents indicating browser requirements, 67% require MSIE 4 or 5.
- Morningstar competitors in the subscription-based market, such as Schwab Institutional, require the use of version 4 browsers.

Morningstar advisor and institutional sites will require the use of version 4 browsers. Support for the anticipated functionality and presentation of the Web applications for the advisor and institutional sites, specifically DHTML and Java, cannot be guaranteed for browsers lower than version 4.







Recommendation

Browser testing and support for front-end technology will consist of unit testing a set of screens that represent the application of the visual design system to the site. A detailed plan for quality assurance criteria and testing will be developed for the implementation phase.

HTML

• HTML 4 will be used to construct page presentation.

HTML 4 is an evolution of the markup language that governs the display of content on web pages. Major improvement in version 4 over earlier versions include: mechanisms for style sheets, scripting, embedding objects, improved support for right to left and mixed direction text, and enhancements to forms for improved accessibility for people with disabilities.

Sapient will use the transitional version of this markup language, which includes some tags and attributes that are deprecated in version 4, but still supported by browsers.

Browser plug-ins

- The Morningstar advisor and institutional sites will require the use of Macromedia Flash and Acrobat Reader plug-ins for users to take full advantage of reporting and data view features on the site.
- Macromedia Flash Player plug-in will be used for some reporting functions.
- PDF files will be used to create documents for printing.

Macromedia reports that, "In December 1999, NPD Research, the parent company of MediaMetrix, conducted a study to determine what percentage of Web browsers have Flash preinstalled. The results show that 85.6% of Web users can experience Flash content without having to download and install a player." The Flash Player is included with Windows 98, Windows 95 OEM upgrade CD, and Macintosh operating systems. It is also distributed with Internet Explorer 4 CD and Web installations, Internet Explorer 5, Netscape Navigator browsers version 4.0.6 and above, and the America Online 5.0 CD.

Adobe Acrobat Reader is used to print platforms independent documents. According to a StatMarket survey, Acrobat Reader has an installed base of 36% in the United States.

JavaScript

• JavaScript 1.2 will be implemented to achieve dynamic display of information.

JavaScript will be implemented so that it can be implemented on all target browsers. There may be some variation of implementation based on the native capabilities of the browser. Where these discrepancies in implementation exist they will be documented and communicated as part of the quality assurance criteria.

Cascading style sheets

• CSS 1.0 with the subset of features of 2.0 identified as CSS-P (positioning) will be used to implement some presentation elements of the user interface.

CSS will be used to enhance typography and the display of HTML objects in the application interface. There is variation in the implementation of this standard between MSIE and Netscape browsers. Style sheets will be developed to optimize presentation in targeted browsers. This will require using JavaScript to detect the user's browser type, then serving the appropriate style sheet for the user's platform. Variation in presentation will be documented and reflected in quality assured criteria.

CSS will be used for dynamic presentation of information through manipulation of style sheet properties by JavaScript (DHTML). CSS attributes unique to IE5 will be used with the requirement that such implementation does not disrupt performance on non-compliant browsers.

Extensible markup language (XML)

• XML will be used to define data that is generated by application processes. In this release of the sites, XML will be served to the client as HTML.

| WINDOWS | lava | Frames | Yahlas | Plug-in | FootStor | FontColor | JanaSoript | Style Shads | 9848 | CHESTAR. | HFramas | Nabba Color | XMI |
|----------------|------|--------|--------|---------|----------|-----------|------------|-------------|------|----------|---------|-------------|-----|
| Explorer 5.0 | ٠ | ٠ | ٠ | ٠ | • | • | • | • | • | • | ٠ | • | • |
| Explorer 6.0 | • | | • | • | • | • | • | • | • | • | • | • | |
| Explorer 3.01 | • | • | ٠ | ٠ | ٠ | ٠ | • | • | • | | • | • | |
| Explorer 2.0 | | | | | | • | | | | | | | |
| Narigator 4.06 | • | • | ٠ | • | | • | ٠ | • | ٠ | • | | • | |
| Navigator 3.0 | • | ٠ | ٠ | ٠ | • | • | • | | • | | | • | |
| Navigator 2.0 | • | ٠ | ۰ | ٠ | • | • | • | | • | | | | |
| Narigator 8.1 | | | ٠ | | • | | | | | | | | |

| • | Supported |
|---|---------------------|
| • | Partially Supported |
| | Not Supported |

| MACINTOSH | Java | Frames | Yahlas | Plug-ing | FoodSize | FootColor | JavaSoript | Styles Sharates | 3646 | 1900 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E-100 E | HFramas | Nabba Color | NW.F |
|-----------------|------|--------|--------|----------|----------|-----------|------------|-----------------|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------|------|
| Explorer 5.0 | • | • | ٠ | • | • | • | • | • | • | • | ٠ | • | • |
| Explorer & D | • | • | • | • | | • | • | • | • | • | • | • | |
| Explorer 3.01 | • | ٠ | • | | • | • | ٠ | ٠ | • | | ٠ | | |
| Narigator 4.116 | • | ٠ | | • | | | • | • | | | | • | |
| Navigator 3.0 | | • | ٠ | • | | • | ٠ | • | • | | | • | |
| Navigator 2.0 | | ٠ | • | • | • | • | • | | • | | | | |

| | Supported |
|---|--------------------|
| • | Partially Supporte |
| | Not Supported |



The capability to serve XML to the client will be retained as that capability is nearing full implementation across browsers. The Web server, content management system, and application servers will pass data using XML. This implementation is outlined in more detail in documents delivered in the Common Components track.

Frames

• Frames will be implemented only as necessary to incorporate third-party content.

Client delivery platform

Target delivery platform

Determining the anticipated hardware configurations that clients will use to access the advisor and institutional sites is essential to developing a testing environment and optimizing presentation of content. Sapient used several sources of information to create this profile of the current state of client technology. The relevant summaries follow.

The aspects of the delivery platform considered include the user's operating system, screen resolution, and screen colors and connectivity.

Operating systems

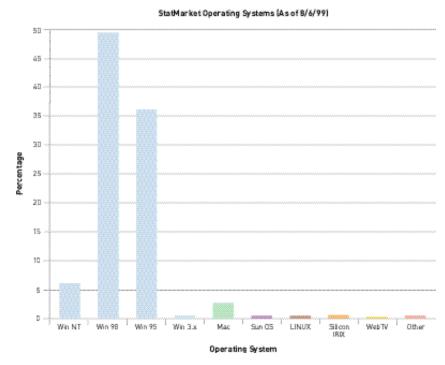
• Morningstar target platforms include Windows 95, Windows 98, and Windows NT.

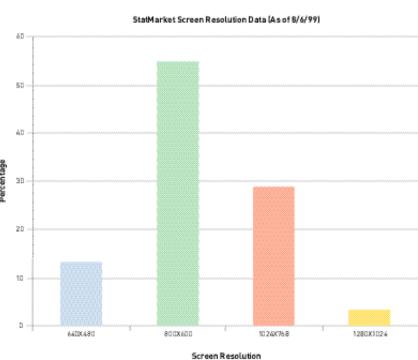
Data collected by StatMarket and Morningstar regarding client use of indicate that virtually all visitors to the site will be using one of these platforms.

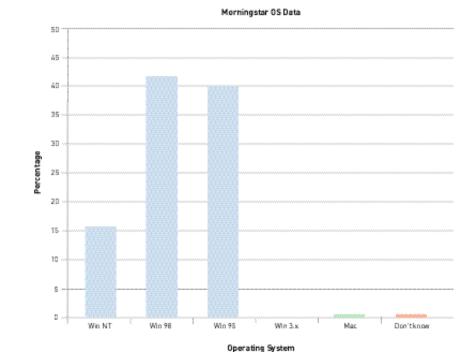
Screen resolution

• Advisor and institutional sites will be designed with a target screen resolution of at least 800 x 600.

An overwhelming majority of visitors to the site can be expected to have even higher resolutions. The 800 x 600 specification indicates the lowest screen resolution that will not require horizontal scrolling. This resolution assumes that users will have the browser window maximized.







Screen colors

• Advisor and Institutional sites will be designed with a target 16-bit screen display.

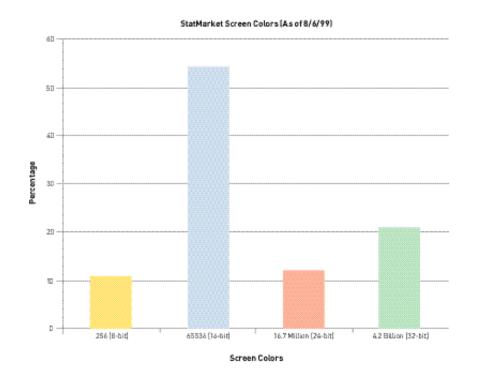
89% of users in StatMarket's August 1999 survey had screen resolutions of 16-bit or higher. This number can be expected to increase by the expected launch of the sites.

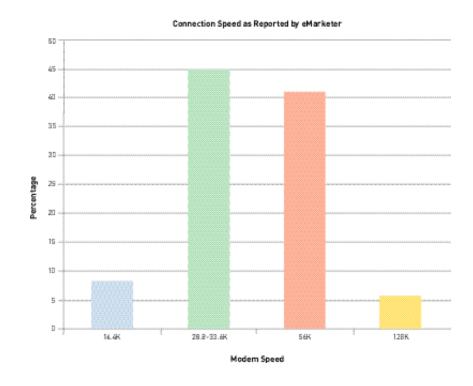
Connection speed

• The Advisor and institutional sites will be developed to target users with at 28.8 baud modems.

Most users will have much faster connections, such as T-1 connections over corporate LAN.

The lower speed connections will be considered in designing the site to accommodate users who will connect to the site from home. Download time based on connection speed will be determined by using a calculation utility. Details will be documented in the testing plan.





Appendix G

Other Model Options Considered



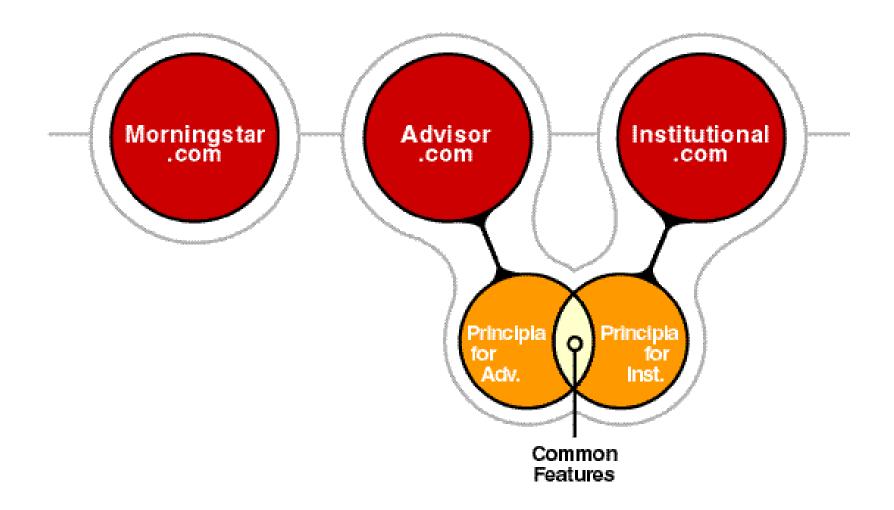
Models: Other Options Considered

To help Morningstar arrive at the best method of structuring its Web presence, Site Strategy generated and assessed several models that take differing approaches to the solution. For each option, we examined related brand implications, pricing models, user access, and other issues integral to the success of the Morningstar offering. An analysis of the following alternative models led to the selection of the model discussed in the main section of this document as the most suitable.



MorningstarAdvisor.com and MorningstarInstitutional.com remain stand-alone Web-based brands bundled with Principia.

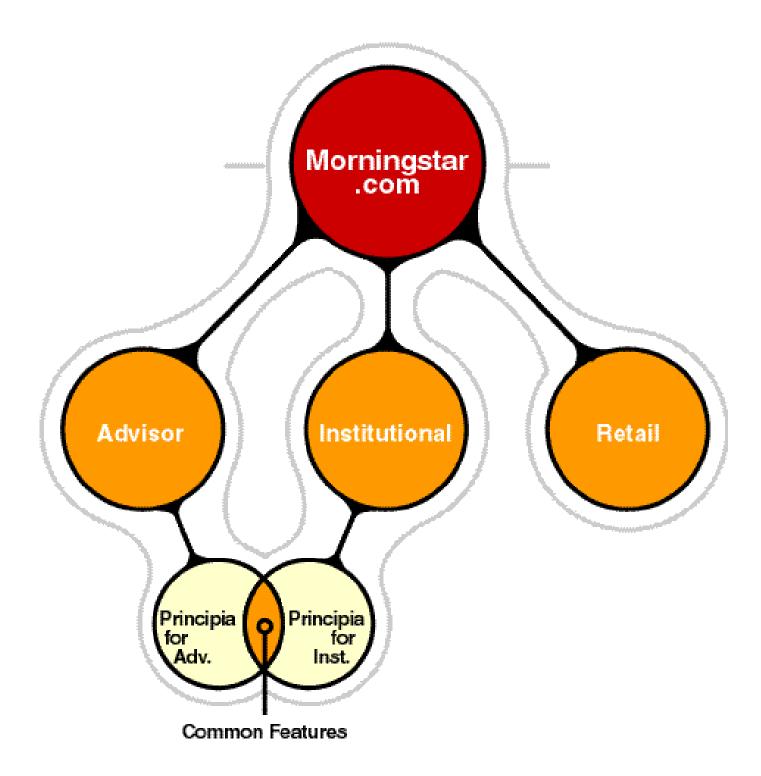
- Provides for discrete advisor and institutional product offerings.
- Aligns with existing organizational structure.
- May not support an interaudience marketplace.
- Morningstar.com continues to refer only to the retail segment.





An audience-based approach segments the site into consumer interest points: Advisor, Institutional, Retail.

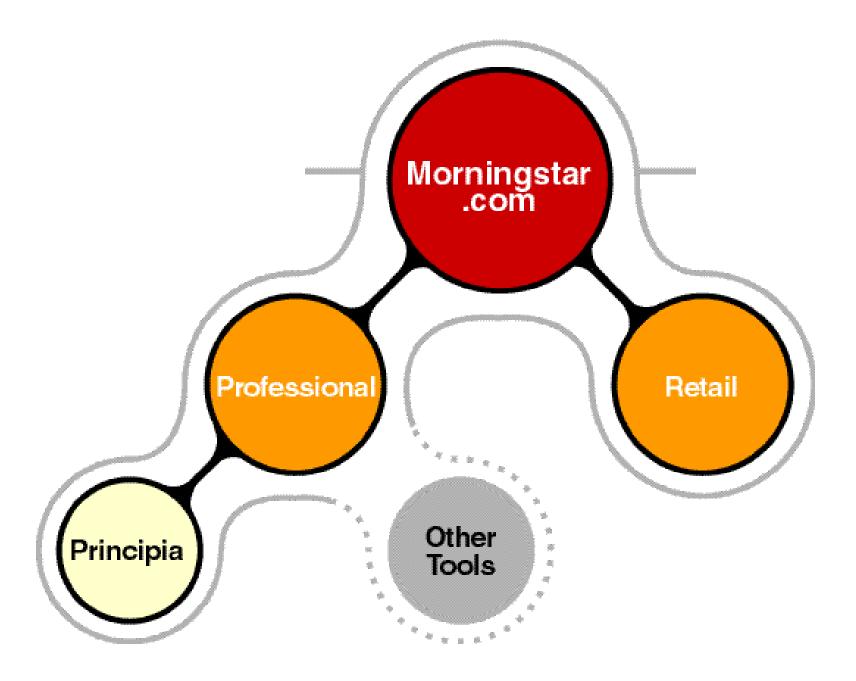
- Creates distinct branding opportunities, elevating individual segments into communities.
- Aligns with existing business structure.
- May reduce revenue due to the site's product transparency and promotional nature.
- Could create marketing and customer segment confusion.





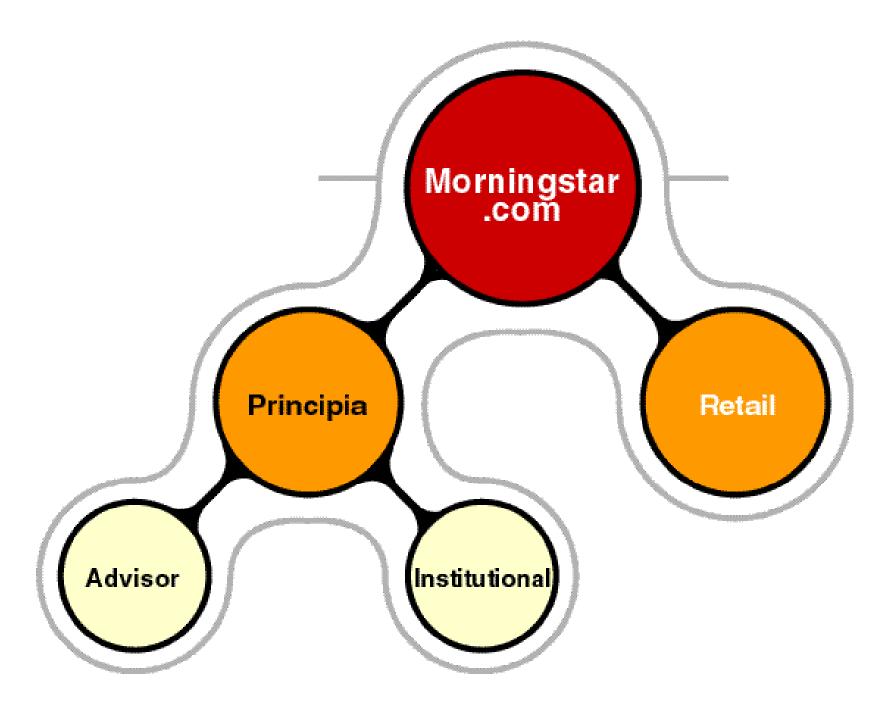
A single point-of-entry divides the site into professional and retail experiences.

- Provides an integrated, scalable experience targeted to individual needs.
- Promotes only one brand, simplifying marketing efforts.
- Mitigates visible pricing differences among advisors and institutions.
- Implies increased coordination between advisor and institutional staffs.



A product-based approach segments the site into retail and non-retail categories.

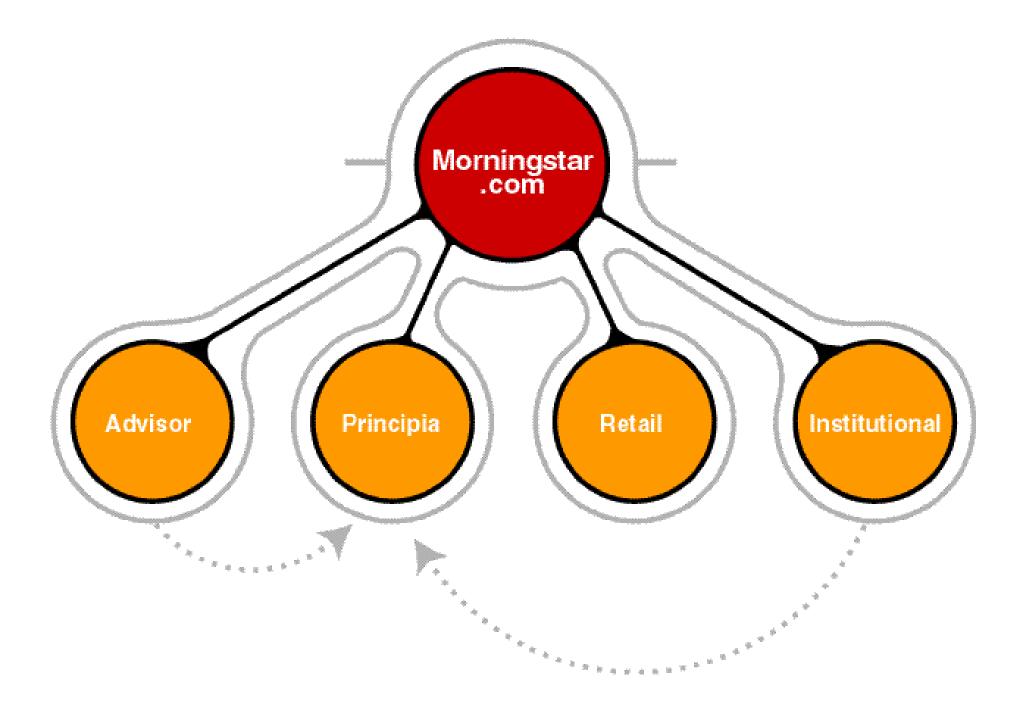
- Provides for discrete advisor and institutional product offerings.
- Aligns with the existing organizational structure.
- May not support an inter-audience marketplace.
- The retail segment continues to have its own, distinct experience.





A product and audience-based approach segments the site into numerous components.

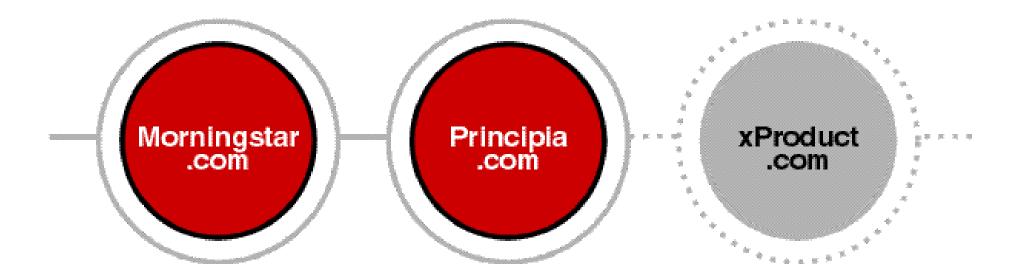
- Specializes in destination-oriented users who want to "get in and get out ... no time for community activities."
- Principia's brand equity remains intact.
- Pricing transparency could adversely affect revenue.
- Community experience could be fragmented, confusing, and ultimately not engaging.





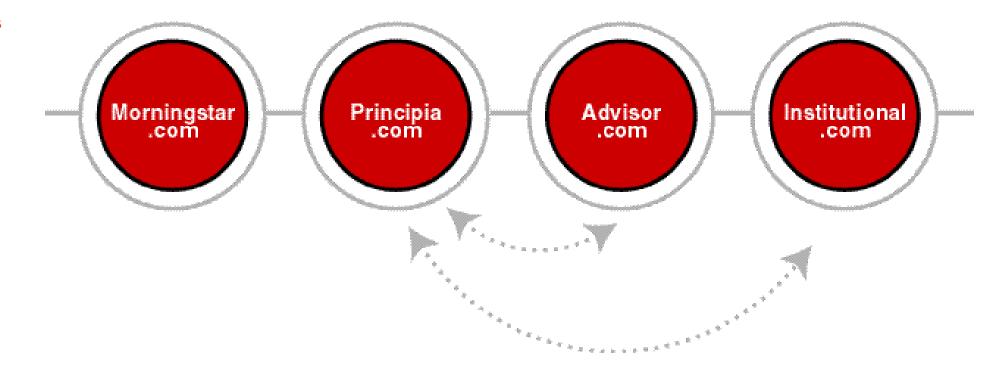
A product-based approach creates sites for every prominent product.

- Product focus allows marketing specific product benefits.
- Offers short-term benefits, but lacks alignment with Morningstar's long-term vision.
- A greater number of user experiences increases design and implementation work.
- A fragmented experience may cause users to feel that the sites do not address all their needs.



A product and audience-based approach creates access channels based on value recognition.

- Maintains current revenue stream of advisor and institutional.
- Maintains product focus and audience segmentation.
- Dilutes user-perceived value of MorningstarAdvisor.com and MorningstarInstitutional.com.
- Audiences may get fragmented messages about the value Morningstar provides.



Appendix H

Strategy Session Summary





Sapient /

Architects for the New Economy"

M\(\tag{RNINGSTAR}\)

Strategy Working Session DRAFT Presentation V3

December 14, 1999

REVISED January 7, 2000

01999, Sepient Corporation

Page 1

Mornhouter i Coofide



Sapient

Architects for the New Economy

Working Session Objectives



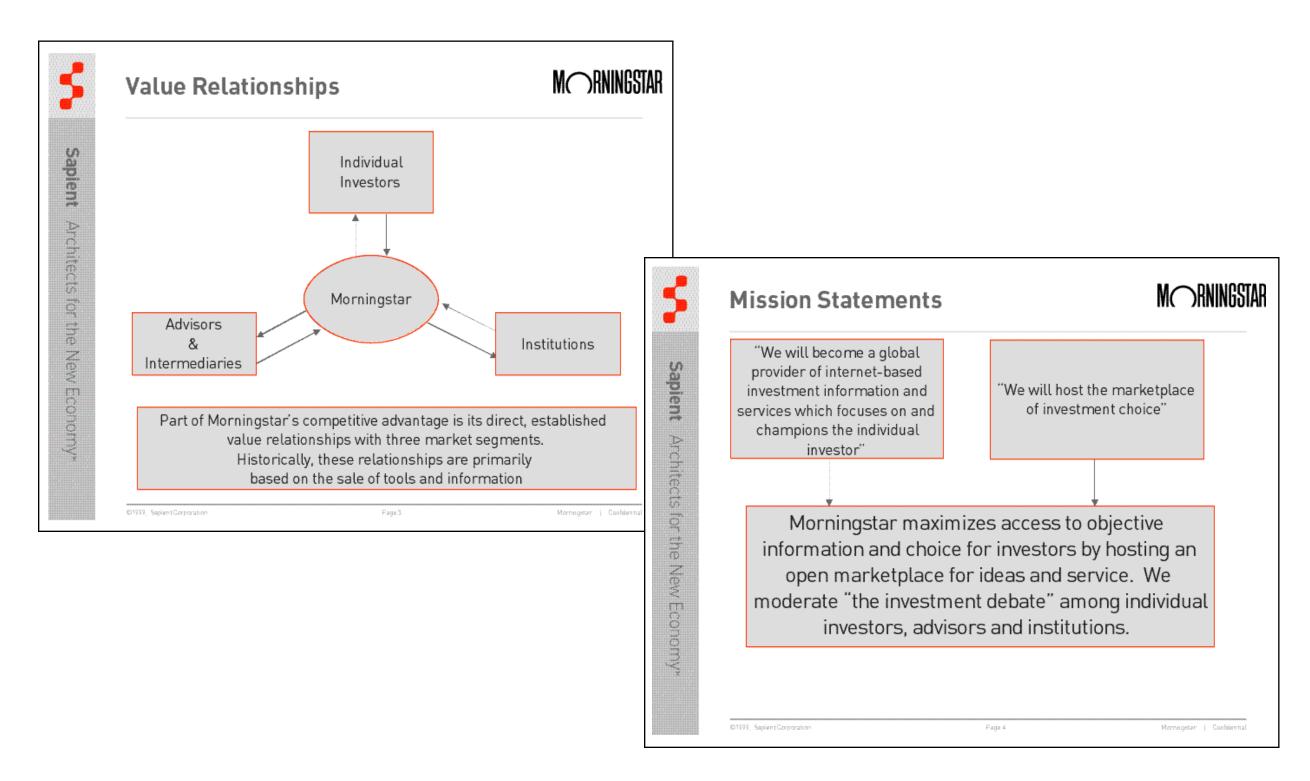
- To build a preliminary, shared "vision" of Morningstar's future on-line relationships with:
 - →Individual investors
 - → Advisors & Intermediaries
 - →Institutions
 - → Partners & Alliances
- To gain a preliminary understanding of the operating strategies that align with our "vision"
 - → Financial Strategy
 - → Market Strategy
 - → Brand Strategy
 - → Organizational Strategy
 - → Technology Strategy

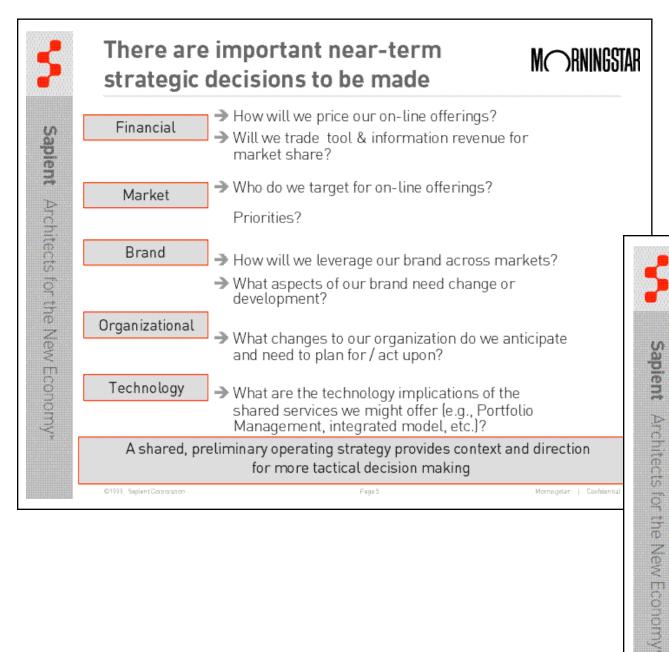
©1999, Sepient Corporation

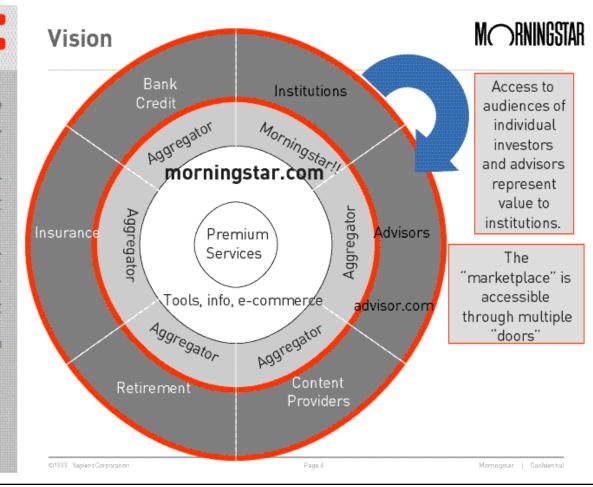
age 2

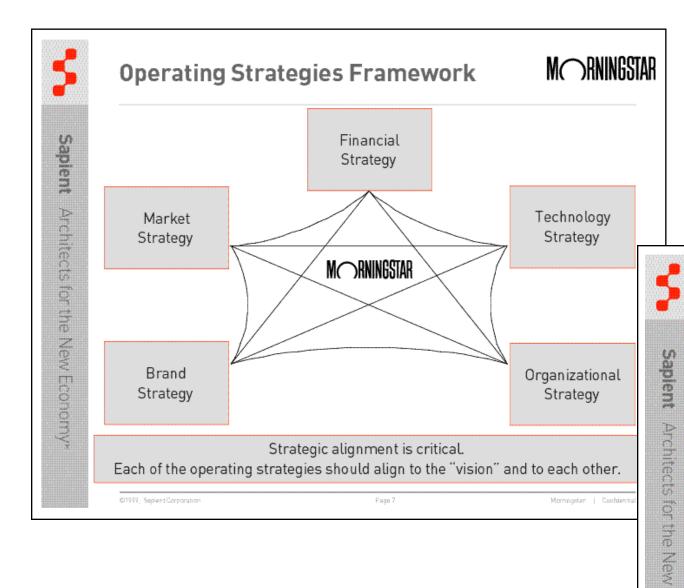
Morningstar j Confide











Financial Strategy



Revenues from Individual Investors

- → Free tools & information through morningstar.com
- → Fee-based, a la carte premium tools, information and services
 - →Preserve existing direct revenues from this market
 - Qualify individual investors for other interested audiences (e.g., advisors & intermediaries, institutions and partners)
- E-commerce commissions and direct sales
 - → Reports
 - →Publications
 - **→**Tools
 - Classes
 - →Hard goods (mugs, pens, etc.)
 - →Books, tapes, etc.

Must Morningstar sacrifice direct revenues from individual investors in order to build a large audience that advisors, intermediaries and institutions will pay to access?

©1999, Sepient Corporatio

Page 6

Romagetar | Confidential



Financial Strategy (continued)



Revenues from Advisors & Intermediaries

- Free tools & information through advisor.com
- → Fee-based, **a la carte** premium tools, information and services
- → E-commerce commissions and direct sales
- → On-line conferences (free or fee?)
- → Pay for Consumer data from morningstar.com
- → Pay for access to individual investors (at morningstar.com)
 - → Registration fee for morningstar.com?
 - →Per referral?
 - →Advertising?
 - →Bundled with tool offering?

Is the current audience of individual investors at morningstar.com attractive to current advisor and intermediary customers?

What is the right way to charge advisors and intermediaries for access to individual investors at morningstar.com?

©1999, SepientCorporator

Page 7

Mornagetar j Confident

\$

Sapient

Architects for the New Eco

Financial Strategy (continued)



Revenues from Institutions

- Pay for tools & information (on-line & data services)
- → Pay for consumer data from Morningstar.com and Advisor.com
- → Pay for access to Investors (Morningstar.com) and Advisors (Advisor.com)
 - →Registration fees?
 - →Fee-based referrals?
 - →Advertising?
 - →Transaction fees?

What is the right way to charge institutions for access to morningstar.com and advisor.com audiences?

F1533 Sasien+Penanhan

age 18

omngetar i Confide

Architects for the New Economy*



Sapient

Architects for the New Economy*

Financial Strategy (continued)



Revenues from Partners & Alliances

- → International Partners
 - →Share of equity
 - →Licensing / Franchising
- → Suppliers of content to morningstar.com and advisor.com (e.g., Multex, etc.)
 - →Exchange of in-kind value (brand visibility)
 - →Shared revenue for traffic
- → Distributors of Morningstar content (e.g., Yahoo, MSN, etc.)
 - →Exchange of in-kind value (brand visibility)
 - →Licensing Fees

What is the appropriate method for monetizing the value of the morningstar.com and advisor.com audiences to partners?

Traffic, not money, is often exchanged between partners.

©1999, SepientCorporation

Page 11

Morningstar i Confiden



Sapient

Architects

for the New

Financial Strategy (continued)

M RNINGSTAR

Revenues from Partners & Alliances

Currently we are receiving revenues from AOL, Yahoo, etc., by providing them with content as they "aggregate" their audience of investors. How will this relationship change if one of the foundations of our strategy is to aggregate our own audience of investors?

Is acquisition by a portal a potentially viable market/financial strategy?

What role does/should Softbank play in answering these questions?

©1999, Sepient Corporation

age 12

arningstar | Got

s



Architects for the New Economy

Financial Strategy (continued)



Other Issues

- → How will Morningstar distinguish and disclose direct and indirect revenues?
- How/where will revenues be accounted for across lines of business?

D1999, SepientCorporation

Page 13

Morphostar i Confri

Sapient

Architects

for the New Economy

Market Strategy

M RNINGSTAR

Individual Investors

Tools
Advisor references
Broker references
Institution references
Tracking data
Advice
e-commerce

Advisors & Intermediaries

Tools
Institution references
Tracking data
Advice
e-commerce
Access to
morningstar.com

Institutions

Tools
Attribution
Research
Education
Advice
Tracking data
Access to
morningstar.com
Access to
advisor.com

©1999, SepientCorporation

Page 14

Morningstar j Confidenti:





Sapient

Architects for the New Economy*

Market Strategy (continued)



Individual Investors:

"Aggregate" at morningstar.com

- → Provide leading tools (aligned with those provided to advisors and institutions) and information to attract individual investors
- → Emphasize Morningstar's differentiation as a unique provider of value-added tools, information, advice and "marketplace"
- → Make an "objective" presentation of advisors, intermediaries and institutions to individual investors. Demonstrate the benefit to individual investors of these new on-line relationships with advisors and institutions

©1999, SepientCorporation

Page 15

Morningstan j Confident

Sapient

Architects

for the New Economy

Market Strategy (continued)



Advisors & Intermediaries:

- "Aggregate" at advisor.com
- Provide access to morningstar.com
- → Provide leading tools (aligned with those provided to morningstar.com investors and institutions) and information to attract advisors & intermediaries to advisor.com
- →Market and sell access to the morningstar.com investor

Our current morningstar.com investor "do-it-yourself" and "validator" audience may not be attractive to our current advisor customers.

©1999, SepientCorporation

age 16-

Morningstar i Confid

5



Sapient

Architects for the New Economy*

Market Strategy (continued)



Institutions:

- Provide tools and deep information & analysis
- Provide access to individual investor and advisor audiences at morningstar.com and advisor.com
- → Provide institutional-level tools and information
 - Tool standards aligned with individual investor and advisor offerings (facilitates interactions)
 - Increased depth of information
- → Provide comparative analysis to inform
 - →Product development
 - →Marketing programs
- Sell" access to individual investors (morningstar.com) and advisors & intermediaries (advisor.com)

©1999, Sepient Corporation

Page 17

Morningstar j Confiden



Sapient

Architects for the New Economy

Market Strategy (continued)



Partners & Alliances:

- Broaden services to investors
- Increase traffic to morningstar.com
- Expand to new markets
- → Content Providers (e.g., INSweb, e-loan, Multex, Big Charts)
- → Co-Branding (e.g., Yahoo Finance, MSN, AOL, Big Charts)
- →International
- Morningstar will work with aggregators (who rate, select, assure quality) in segments in which we are not the aggregator

©1999, Sepient Corporation

age 16

domngetar i Confi

5



Sapient

Architects

ģ

Ħ

New

Economy

Market Strategy (continued)



Issues

- Morningstar cannot appear biased towards any one vendor. Doing so risks Morningstar's "independent & objective" brand image towards the individual investor
- → How does Morningstar deal with aggregators who are portals?

Our current morningstar.com audience may not be attractive to our current advisor audience. If part of our strategy is to leverage the morningstar.com audience to advisors, more consideration is needed about the current morningstar.com audience and it's value to current advisor customers.

There seems to be agreement that access to audiences of advisors and individual investors represent value to institutions.

If attracting and aggregating individual investors is at the core of Morningstar's digital business strategy, what needs to be offered in order to attract the audiences that are valuable to institutions and advisors?

Is acquisition by a portal a potentially viable market/financial strategy? What role does/should Softbank play in answering these questions?

©1999, Sepient Corporation

Page 10

Morningstar j Confid

Sapient Architects for the New Economy*

M RNINGSTAR **Brand Strategy** Brand Attributes to Brand Attributes to Advisors, Intermediaries, Individual Investors Institutions and Partners "Authority" • "Clarifying" · "Established, qualified community of · "Empowering" individual investors" · "Independent" · "Quality data" · "Objective" · "Objective" "Unbiased" • "Unbiased" · "Comprehensive" "Independent" . "Best tools and information" · "Comprehensive" · "Utility" • "Multi-market" • "Best tools to advise" (e.g., Principia). • "Information depth and rigor" Principia product has developed its own brand equity • "Unifying" "Unifying" Platform where individual investors. . "Platform where individual investors, advisors and institutions can all connect" advisors and institutions can all connect"

Ś



Sapient

Architects for the New Economy

Brand Strategy (continued)



Issues

- → How does Morningstar continue to maintain its brand attributes?
 - To be perceived as "comprehensive," Morningstar needs to satisfy as many of the user needs as possible (For example: currently all asset classes are not represented)
 - The investment philosophy needs to be clearly represented to support the "clarifying" and "authority" attributes
 - → Full disclosure to individual investors is necessary to preserve unbiased, objective, independent attributes as more transactions occur between potentially influential parties

©1999, SepientCorporation

Page 21

Morningster i Confide

Brand Strategy (continued)



Issues

Sapient

Architects for the New Economy

- → As offerings expand, how will Morningstar stretch the brand to cover them?
 - If Morningstar is creating a "unifying" platform, how does the brand have to change to accommodate that?
 - → If Morningstar is going to sell consumer market information, how does the brand have to change to accommodate that?
- → How will the brand support future company goals?
 - →A "marketplace"
 - → A "digital" company

©1999, SepientCorporation

Page 22

orningstat | Contro

5



Sapient

Architects for the New Economy

Organizational Strategy



- Consolidate strategy and business unit responsibility at the "steering committee" level
- → Consolidate "specialists" where business unit integration is necessary
 - → Tools
 - → Debate (editor-in-chief)
 - → Advice
 - → Access (advertising, business models)
- Execute strategy within business units with dedicated staff
 - → Product Development
 - → Product Management
 - →Application Development
 - → Content Management
 - Editorial (industry/market specific)
 - → Product support

Functional specialists and dedicated business unit "executors" are accountable to steering committee members

01999, SepientCorporation

Page 23

Morningstar j Confid



Sapient

Organizational Strategy (continued)

M RNINGSTAR

Steering Committee Functions "Strategy"

- •Business Strategy
- Product Management
- $\bullet \mathsf{Marketing}\ \mathsf{Strategy}$
- Technology Strategy
- •Content Strategy

Business Unit Functions "Implementation"

- •Product Development
- •Product Management
- Product Support
- •Application Development
- •Content Management
- •Field Sales
- •Editorial (industry/market specific)

Centralized Functions "Support"

- •Data & analysis (generic investment info)
- •Product and Site Design
- Technology infrastructure
- Marketing
- Product support
- Tele-sales
- Finance (w/ liaisons in business units)
- •HR (w/ liaisons in business units)
- •MIS
- Publishing
- Public Relations (outsourced / supplemented)
- Editorial (editor-in-chief)
- •Legal

Page 24

omngetar i Conhdentia

ts for the New Economy

s



Sapient

Organizational Strategy (continued)



Current Organizational Issues

- Within business units, decision-making authority does not align with accountability for performance
 - Business unit "owners" have financial performance responsibility, but may lack decision-making authority
 - Organizational authority between "staff" and "line" personnel is unclear
- "dot.com" business functions and resources (e.g., content, product engineering, etc.) are currently shared across all business units, but focusing primarily in retail
- → An internally-focused executive (COO) is needed
- → Don's and Tim's "visions" appear to be different

©1999, Sepient Corporation

Page 25

U------ : P--

Technology Strategy



Infrastructure

Sapient

Architects for the New Economy'

- The technology infrastructure will facilitate sharing of information across business units
- → The web architecture will be modular and extensible to facilitate emerging market opportunities

Applications

- → Emphasis on quality and time-to-market
- → We will "buy" whenever possible, "build" if necessary

Data

- → Data integrity is primary emphasis
- → "Core" data (e.g., stock and fund information) is centrally managed, easily shared & accessed
- → "Provided" data (from on-line partners) maintained & managed by partners (S&P model)

©1999, SepientCorporation

age 26

omngetar | Conhoe

Architects for the New Economy*

s

