
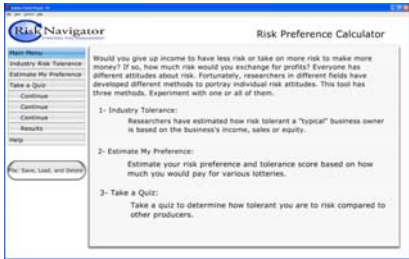


University of California
Agriculture and Natural Resources

Strategic Risk Management in Agriculture



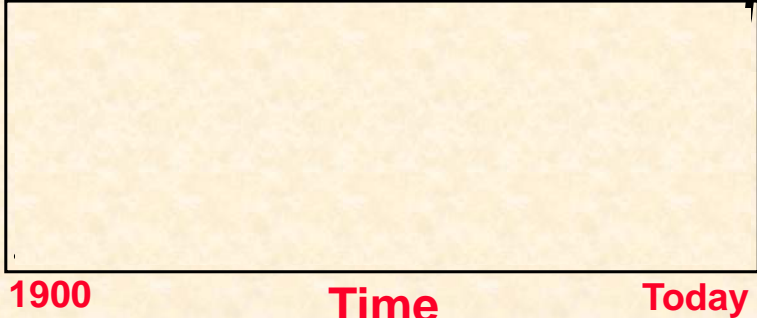
John Hewlett
Jay Parsons



RIGHT RISK **RMA**

Introduction
Strategic
Tactical
Operational
Ag Risks
Do It Yourself

What Does This Graph Represent?



1900 Time Today

Risk Navigator SRM

Introduction
Strategic
Tactical
Operational
Ag Risks
Do It Yourself

NEW THINKING NEEDED

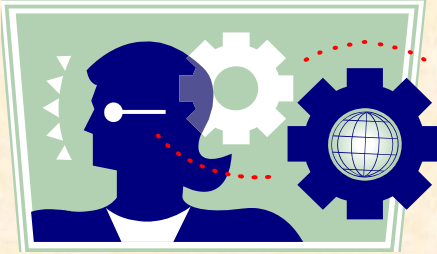


Risk Navigator SRM

Introduction
Strategic
Tactical
Operational
Ag Risks
Do It Yourself

Strategic Thinking Involves

Studying the environment through an intuitive, visual and creative process, which results in an understanding of the emerging themes, issues, patterns and opportunities.

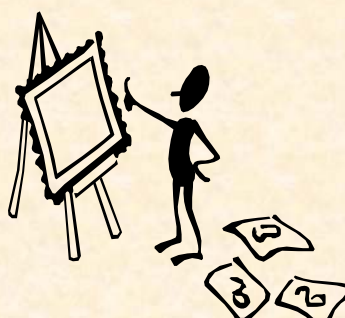


Risk Navigator SRM

Introduction
Strategic
Tactical
Operational
Ag Risks
Do It Yourself
Risk Navigator SRM

“The best way to predict the future is to create it.”

Peter Drucker



Risk Navigator SRM



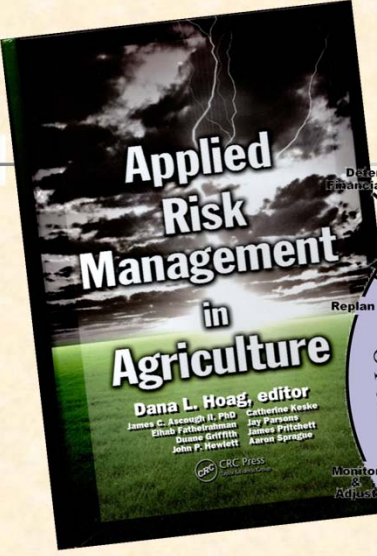
- Introduction
- Strategic
- Tactical
- Operational
- Ag Risks
- Do It Yourself
- Risk Navigator SRM


Sources of Risk

- Production-** yield/quality variability
- Marketing-** changes in price/external conditions
- Financial-** variability in debt/equity capital and ability to meet cash demands
- Legal-** responsibilities for contracts, statutory compliance, tort liability, and business structure
- Human-** managing people and estate transfers



- Introduction
- Strategic
- Tactical
- Operational
- Ag Risks
- Do It Yourself
- Risk Navigator SRM





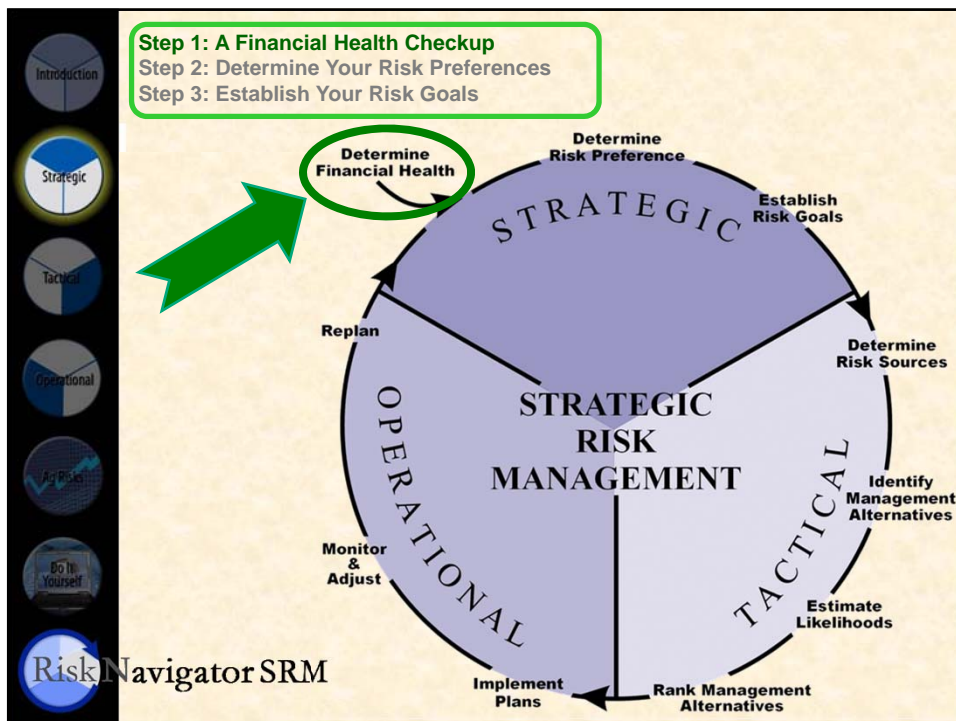
Strategic Management

“...Choosing where to go...”

The first stage of the process, provides an initial understanding of the health of the financial resource available

Risk Navigator SRM

Navigation Sidebar: Introduction, Strategic, Tactical, Operational, Do It Yourself, Risk Navigator SRM



Introduction

Strategic

Tactical

Operational


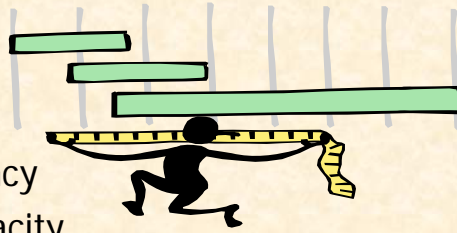
Risk

Do It Yourself

Risk Navigator SRM

Measures of Financial Health

- Financial Performance Measures
 - Liquidity
 - Solvency
 - Profitability
 - Financial Efficiency
 - Repayment Capacity
- **SWEET 16**



Introduction

Strategic

Tactical

Operational

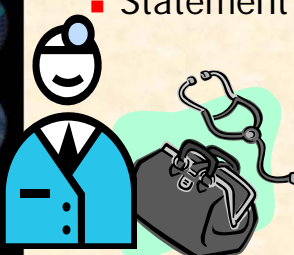

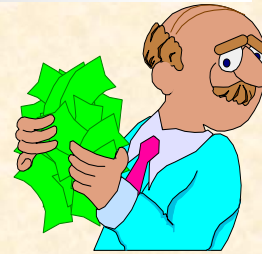
Risk

Do It Yourself

Risk

Sources of Financial Information

- Financial Statements
 - Balance Sheet
 - Statement of Cash Flows
 - Income Statement
 - Statement of Owner Equity

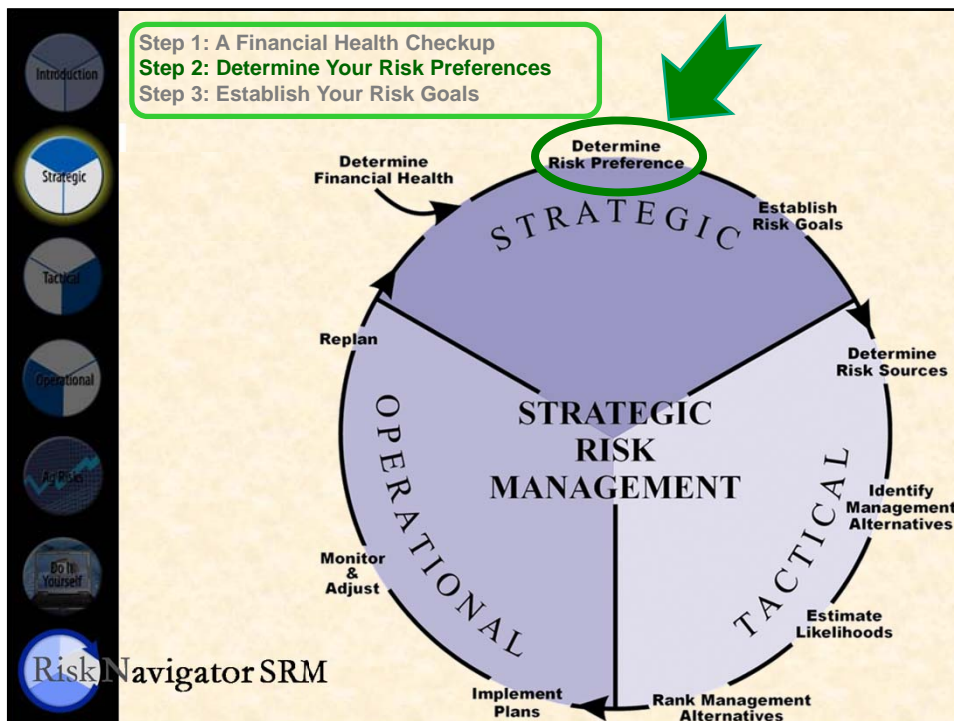



- Introduction
- Strategic
- Tactical
- Operational
- Ag Risks
- Do It Yourself
- Risk Navigator SRM

Resource Inventory

- Land/ Equipment
- Improvements
- Soil, Water, Range
- Livestock
- Finances
- Wildlife
- Human Potential

Risk Navigator SRM






Risk Preference

- Measurable
- Dynamic (changes over time)
- Influenced by a number of factors
 - Financial health/wealth
 - Current risk portfolio
 - Value at risk (consequence)
 - Demographics: gender, age
- Measure CURRENT risk preference

Risk Navigator SRM



Risk Trade-offs

- Upside: Greater risk taking leads to greater wealth over time
- Downside: Losses from risk taking can be potentially devastating
- How much inconvenience and stress are you willing to endure?

Risk Navigator SRM

Introduction

Strategic

Tactical

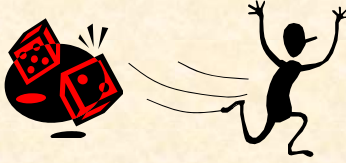
Operational


Risk

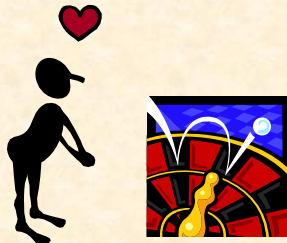
Do It Yourself

Risk Navigator SRM

Three Types of Risk Preference

Risk Averse 

Risk Neutral 

Risk Loving 

Introduction

Strategic

Tactical

Operational

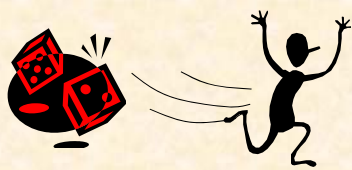
Risk

Do It Yourself

Risk Navigator SRM

Risk Averse

- Prefers investment with lower, but certain, expected payoff
- Compare to an investment with higher, but uncertain, payoff



Introduction
Strategic
Tactical
Operational
Risk
Do It Yourself
Risk Navigator SRM

Risk Neutral

- Only cares about the expected payoff of an investment and not the risk that must be taken to achieve the investment goal
- Neither actively takes risks nor pays to avoid them
- Example: Self-insures against loss



The illustration shows a black stick figure standing next to a platform scale. On the scale are two dice, one white and one black, representing a random outcome or risk. The figure is looking at the scale, symbolizing a person who is indifferent to the risk of the investment, focusing only on the expected payoff.

Introduction
Strategic
Tactical
Operational
Risk
Do It Yourself
Risk Navigator SRM

Risk Loving

Actively engages in risky investments

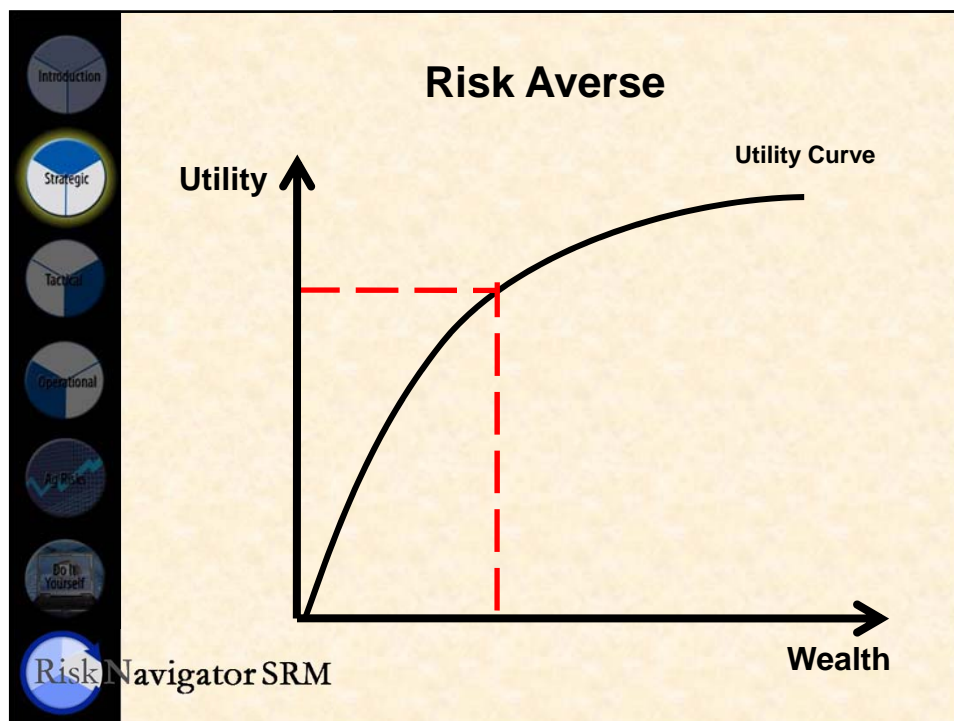


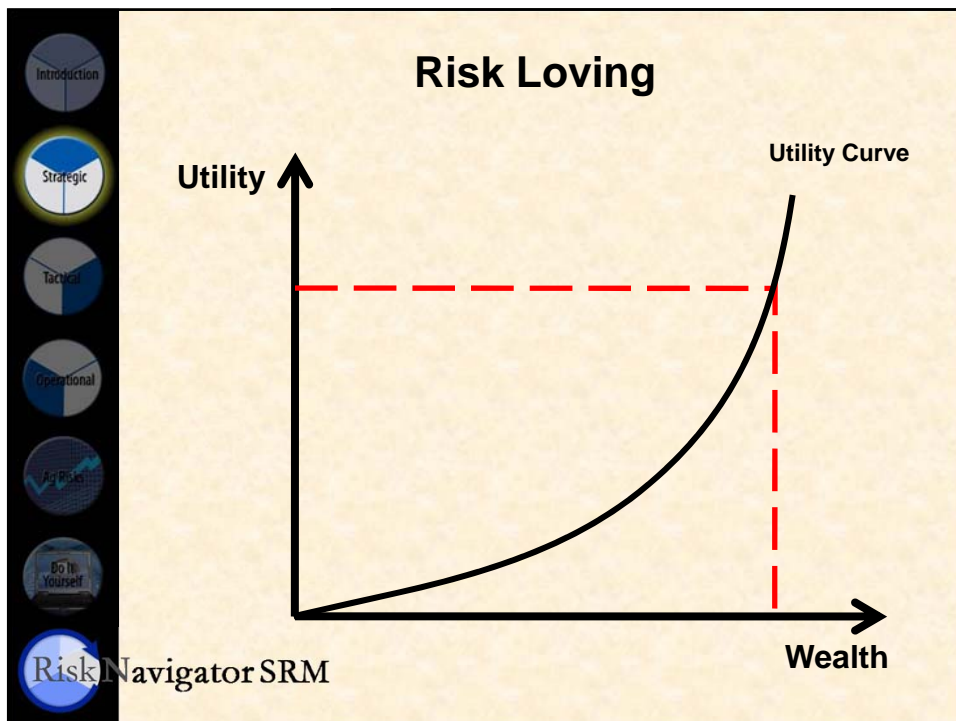
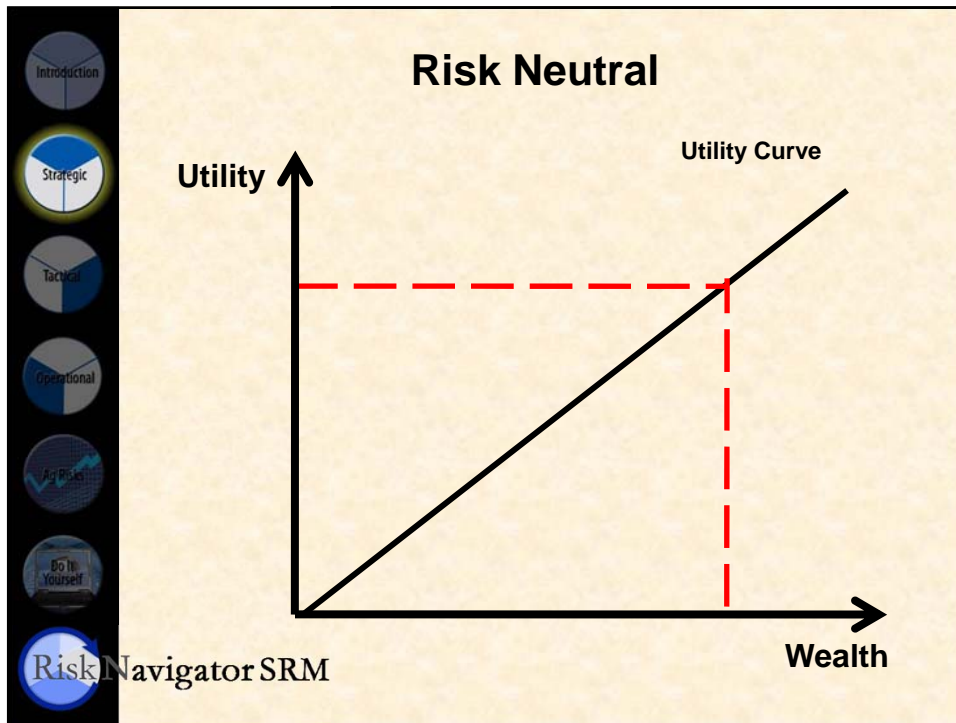
The illustration shows a black stick figure holding a red heart above its head. To the right is a dartboard with a yellow dart in the bullseye, symbolizing a person who actively seeks out and engages in risky investments.

Introduction
Strategic
Tactical
Operational
Risk
Do It Yourself
Risk Navigator SRM

Utility (U)

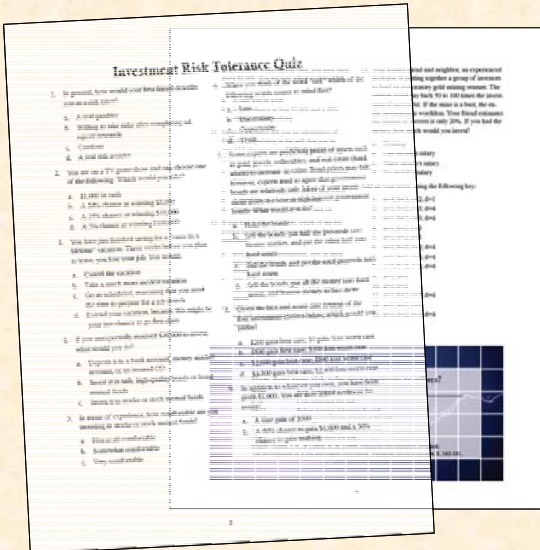
- Scale of satisfaction
- Based on economic theory
- Mathematically complex formulas that show:
 - Risk tolerance depends upon wealth
 - Satisfaction derived from wealth
 - Rate of satisfaction derived from wealth changes as wealth changes
 - Utility derived from wealth $U(W)$





Introduction
Strategic
Tactical
Operational
Risk
Do It Yourself
Risk Navigator SRM

Finding Your Ability and Preference to Tolerate Risk

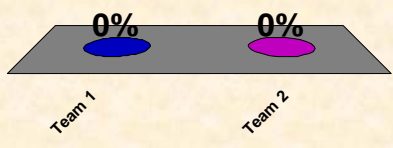


The image shows a document titled "Investment Risk Tolerance Quiz" with multiple-choice questions. The questions cover various aspects of risk tolerance, such as investment goals, risk aversion, and the ability to handle market volatility. The document is presented as a stack of papers on a light-colored background.

Introduction
Strategic
Tactical
Operational
Risk
Do It Yourself
Risk Navigator SRM

Please select a Team.

1. Team 1
2. Team 2



The image shows a team selection interface with two buttons labeled "Team 1" and "Team 2". Above each button is a progress bar indicating 0% selection. The buttons are blue and purple respectively.

Introduction

Strategic

Tactical

Operational

Risk Rules

Do It Yourself

Risk Navigator SRM

In general, how would your best friend describe you as a risk taker?

- a. A real gambler
- b. Willing to take risks after completing adequate research
- c. Cautious
- d. A real risk avoider

0%	0%	0%	0%
a. A real gambler	b. Willing to take risks...	c. Cautious	d. A real risk avoider

Introduction

Strategic

Tactical

Operational

Risk Rules

Do It Yourself

Risk Navigator SRM

You are on a TV game show and can choose one of the following. Which would you take?

- a. \$1,000 in cash
- b. A 50% chance at winning \$5,000
- c. A 25% chance at winning \$10,000
- d. A 5% chance at winning \$100,000

0%	0%	0%	0%
a. \$1,000 in cash	b. A 50% chance at winning \$5,000	c. A 25% chance at winning \$10,000	d. A 5% chance at winning \$100,000

Introduction

Strategic

Tactical

Operational

Risk

Do It Yourself

Risk Navigator SRM

You have just finished saving for a “once-in-a-lifetime” vacation. Three weeks before you plan to leave, you lose your job. You would:

- a. Cancel the vacation
- b. Take a much more modest vacation
- c. Go as scheduled, reasoning that you need the time to prepare for a job search
- d. Extend your vacation, because this might be your last chance to go first-class

0% 0% 0% 0%

a. Cancel the vacation
b. Take a much mor...
c. Go as scheduled, ...
d. Extend your vacati...

Introduction

Strategic

Tactical

Operational

Risk

Do It Yourself

Risk Navigator SRM

If you unexpectedly received \$20,000 to invest, what would you do?

- a. Deposit it in a bank account, money market account, or an insured CD
- b. Invest it in safe, high-quality bonds or bond mutual funds
- c. Invest it in stocks or stock mutual funds

0% 0% 0%

a. Deposit it in a ban...
b. Invest it in safe, h...
c. Invest it in stocks o...

Introduction
Strategic
 Tactical
 Operational
 Analytics
 Do It Yourself
 Risk Navigator SRM

In terms of experience, how comfortable are you investing in stocks or stock mutual funds?

- a. Not at all comfortable
- b. Somewhat comfortable
- c. Very comfortable

Category	Percentage
a. Not at all comfortable	0%
b. Somewhat comfortable	0%
c. Very comfortable	0%

Introduction
Strategic
 Tactical
 Operational
 Analytics
 Do It Yourself
 Risk Navigator SRM

When you think of the word “risk” which of the following words comes to mind first?

- a. Loss
- b. Uncertainty
- c. Opportunity
- d. Thrill

Category	Percentage
a. Loss	0%
b. Uncertainty	0%
c. Opportunity	0%
d. Thrill	0%

Introduction

Strategic

Tactical

Operational

Risk

Do It Yourself

RiskNa

Quiz Results

Score	Risk Tolerance Level
6-8	Low tolerance for risk
9-12	Below-average tolerance for risk
13-15	Average/moderate tolerance for risk
16-19	Above average tolerance for risk
20-22	High tolerance for risk

Introduction

Strategic

Tactical

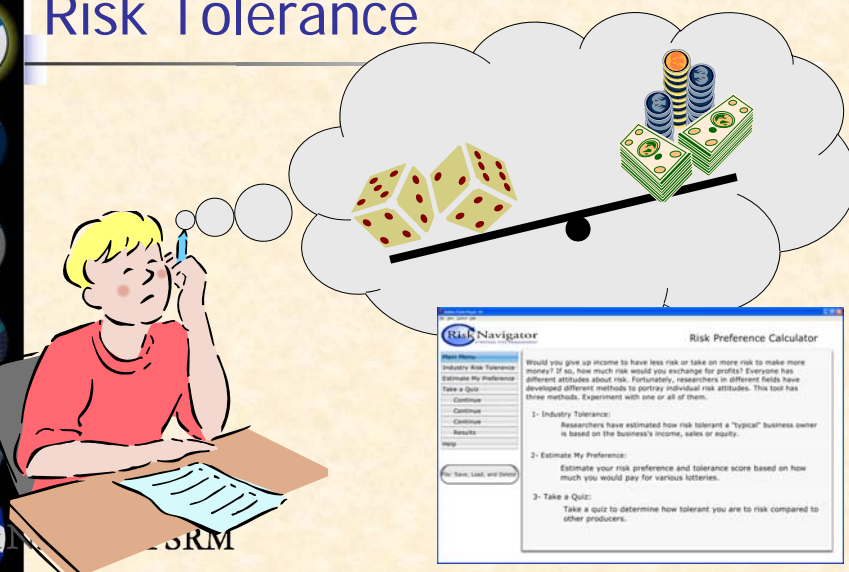
Operational

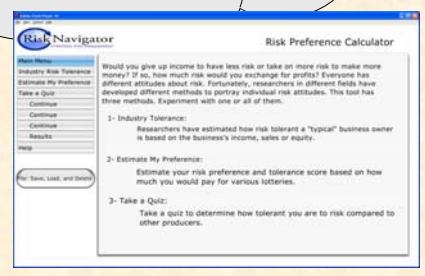
Risk

Do It Yourself

RiskNa

Risk Tolerance

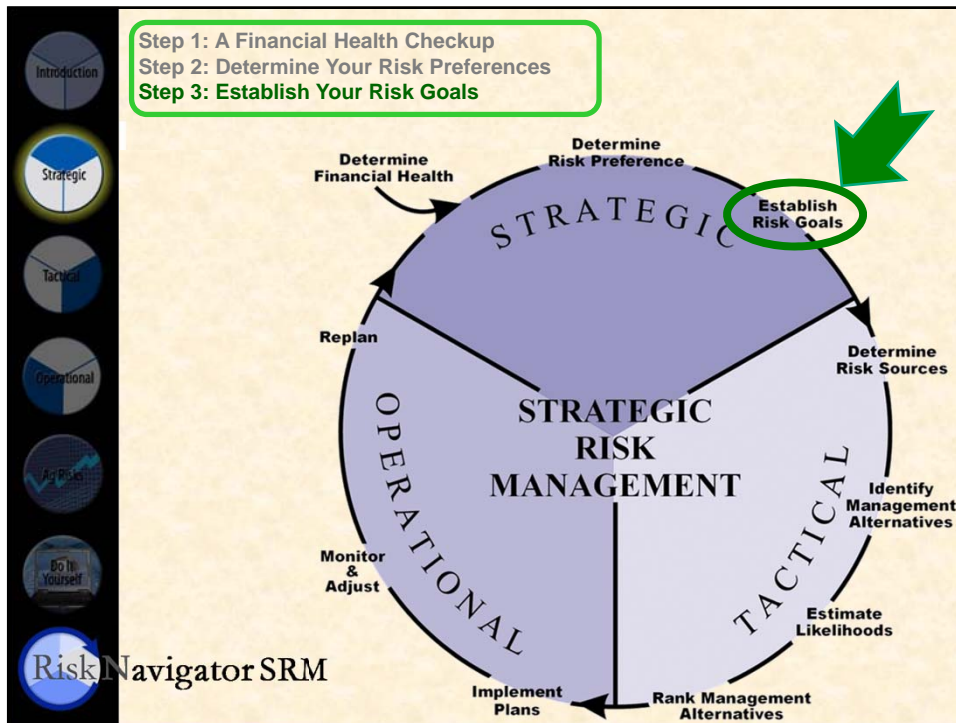




Risk Navigator Risk Preference Calculator

Would you give up income to have less risk or take on more risk to make more money? If so, how much risk would you exchange for profits? Everyone has different attitudes about risk. Fortunately, researchers in different fields have developed different methods to portray individual risk attitudes. This tool has three methods. Experiment with one or all of them.

- Industry Tolerance:** Researchers have estimated how risk tolerant a "typical" business owner is based on the business's income, sales or equity.
- Estimate My Preference:** Estimate your risk preference and tolerance score based on how much you would pay for various lotteries.
- Take a Quiz:** Take a quiz to determine how tolerant you are to risk compared to other producers.



Introduction

Strategic

Tactical


Operational

Risk

Do It Yourself

Risk Navigator

Writing Goals



The illustration shows a scroll with three goals: Goal #1 with coins, Goal #2 with a money bag, and Goal #3 with a stack of bills. To the right, the word 'SMART' is written in large, yellow, stylized letters. Below it, a hand is shown writing on a green notepad with a purple pen.

Introduction

Strategic

Tactical

Operational

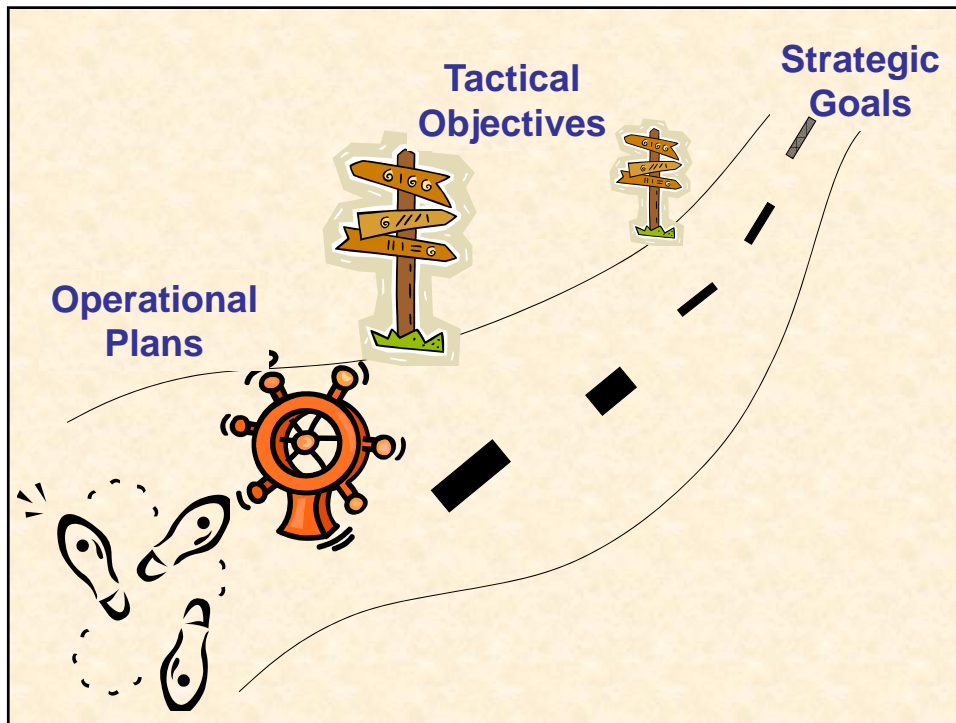
Risk

Do It Yourself

Risk Navigator SRM

Strategic Management

- Looks at the BIG picture
- Tells:
 - Where you are heading
 - What it might look like once you arrive
- Keeps the operation focused
- Allows for proactive management



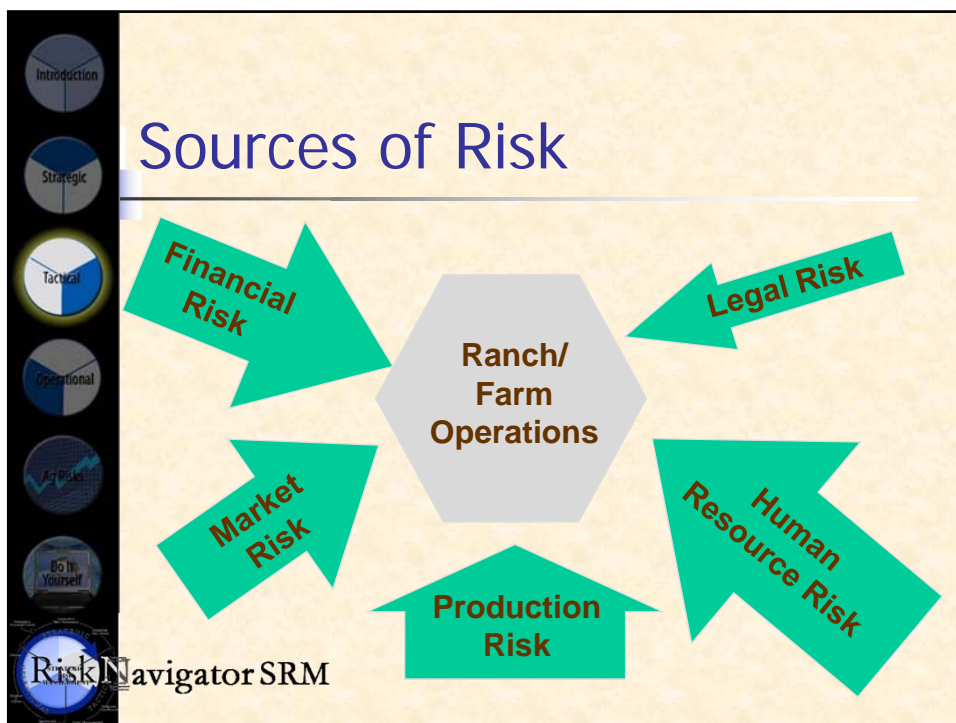
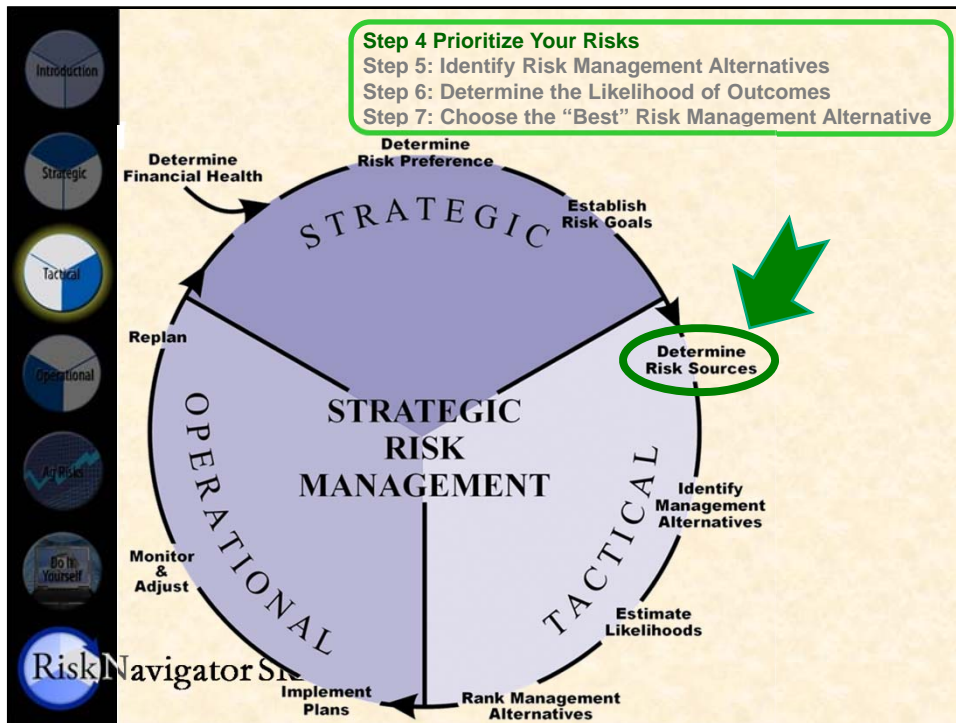
Tactical Management

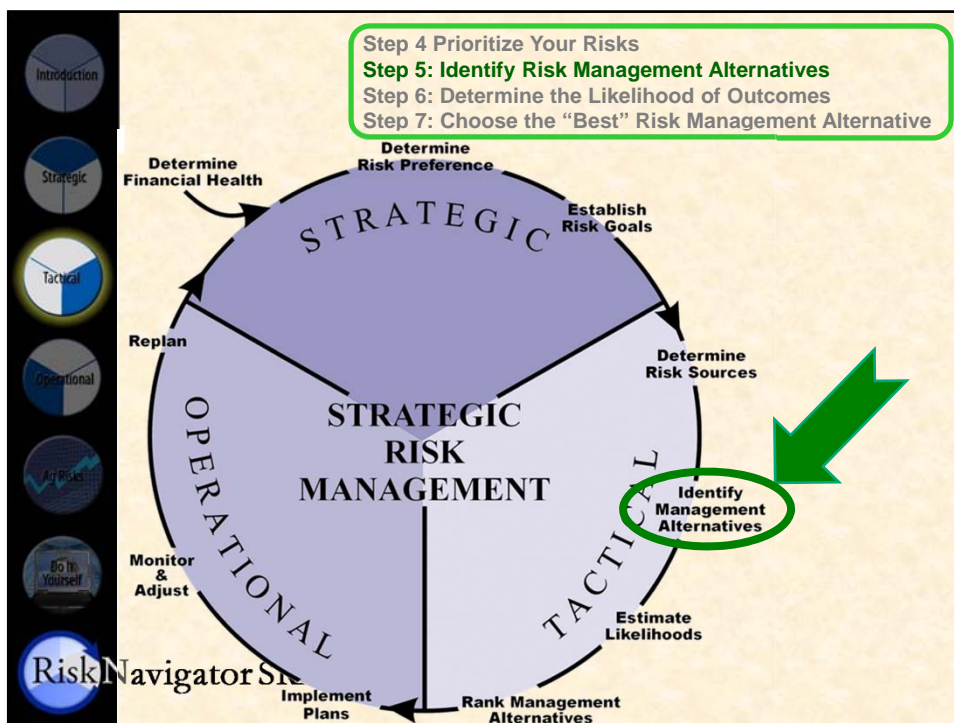
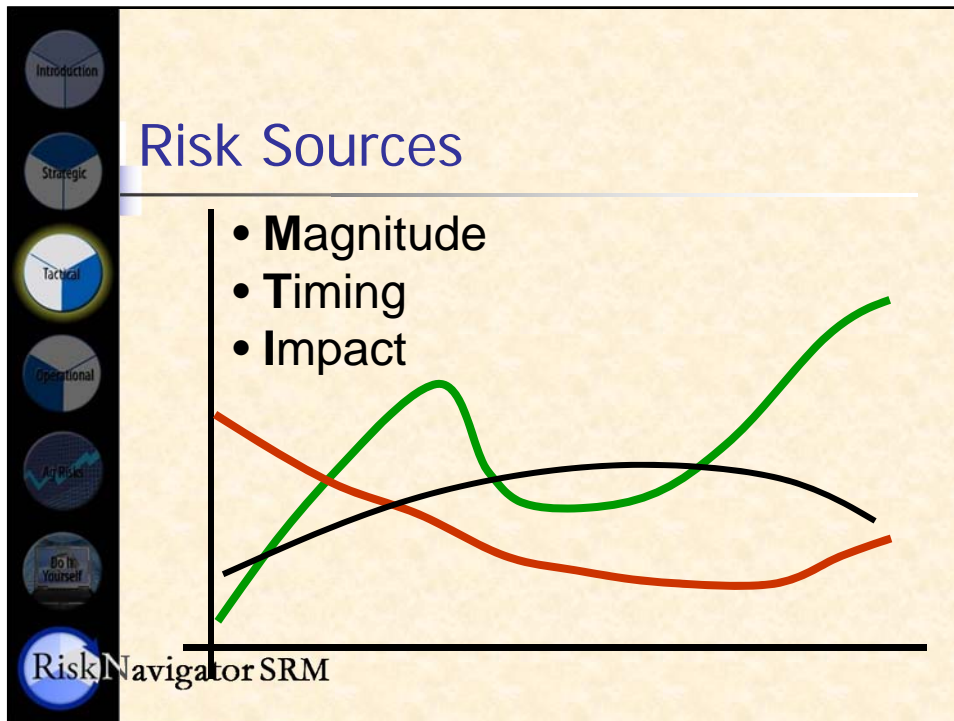
“...Choosing the right things to do...”

At the tactical level, we analyze the alternatives for “how” we will get to where we want to go.

Risk Navigator 6.1.1

The slide features a dark, stormy sky background with a green field at the bottom. On the left side, there is a vertical navigation menu with circular icons labeled: Introduction, Strategic, Tactical (highlighted), Operational, Air Power, Do It Yourself, and Risk Navigator 6.1.1. The main text is in yellow and white, with a quote in a white box with a brown border.





Introduction

Strategic

Tactical

Operational

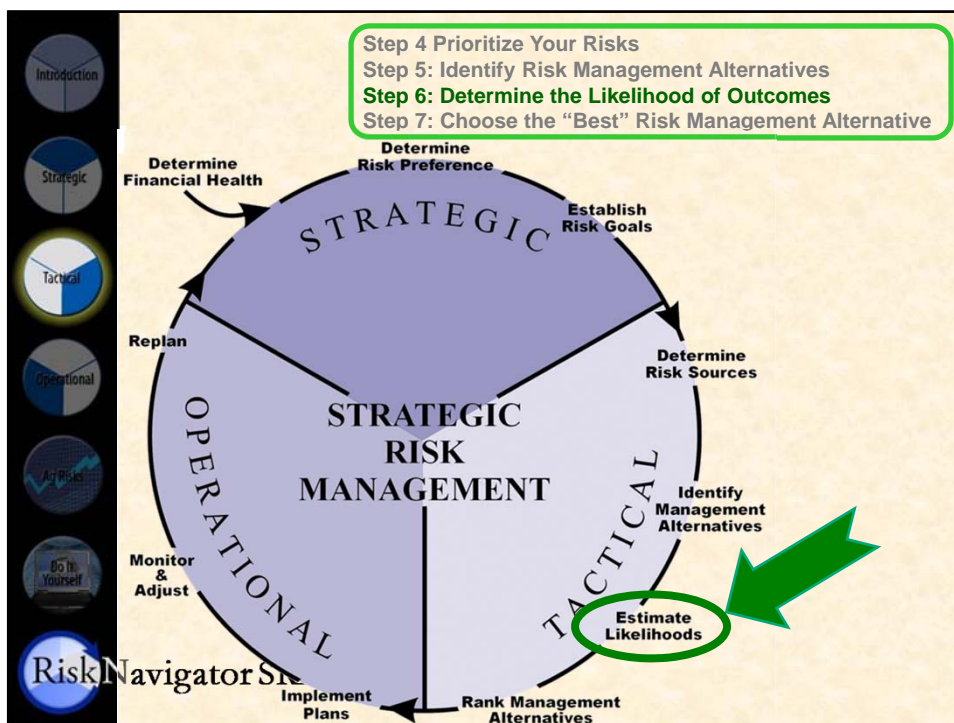
Act Risks

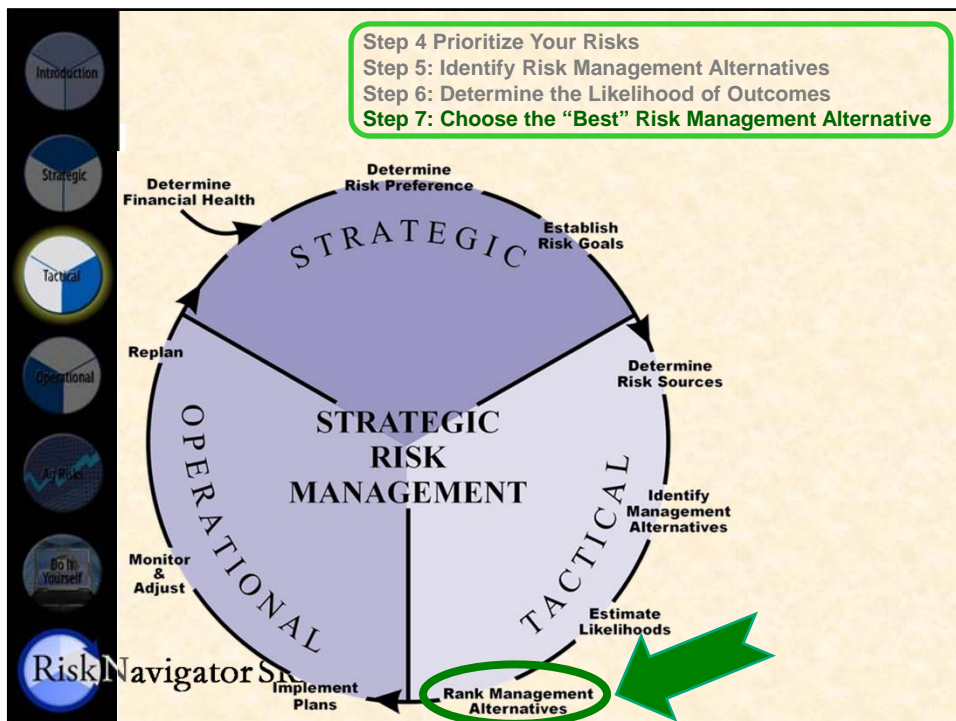
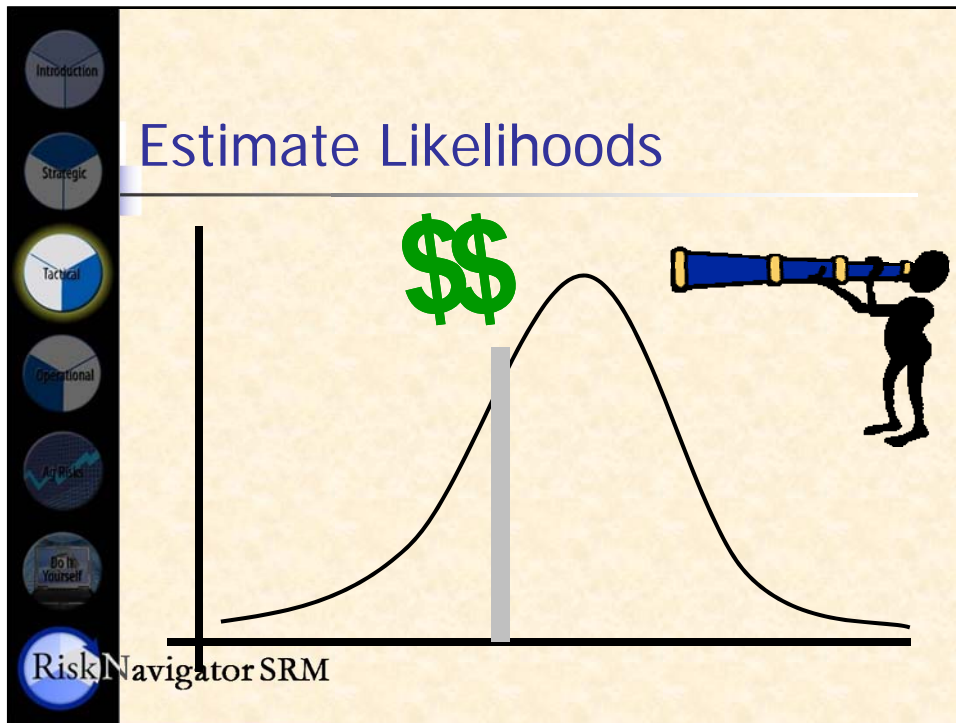
Do It Yourself

Risk Navigator SRM

Identify Management Alternatives

- Assume the risk
- Avoid the risk
- Reduce the risk
- Transfer the risk





Introduction
Strategic
Tactical
Operational
Analyze
Do It Yourself

Rank Management Alternatives

Risk Navigator SRM

The illustration depicts a central figure drawing a large dollar sign on a board. To the left, a figure carries a money bag. To the right, a figure runs. In the foreground, a figure uses a hammer. A soccer ball is also present. The background is a light beige color.

Introduction
Strategic
Tactical
Operational
Analyze
Do It Yourself

Choose the Alternative

Risk Navigator SRM

The diagram is a decision tree starting from a single point on the left. It branches into two paths, each leading to another set of two paths. The top-most path ends with '\$\$\$', while the other three paths end with '\$'. A stick figure on the right points towards the '\$\$\$' outcome.

Introduction
Strategic
Tactical
Operational
Ag Risks
Do It Yourself
Risk Navigator

Operational Management

“...Doing Things Right...”

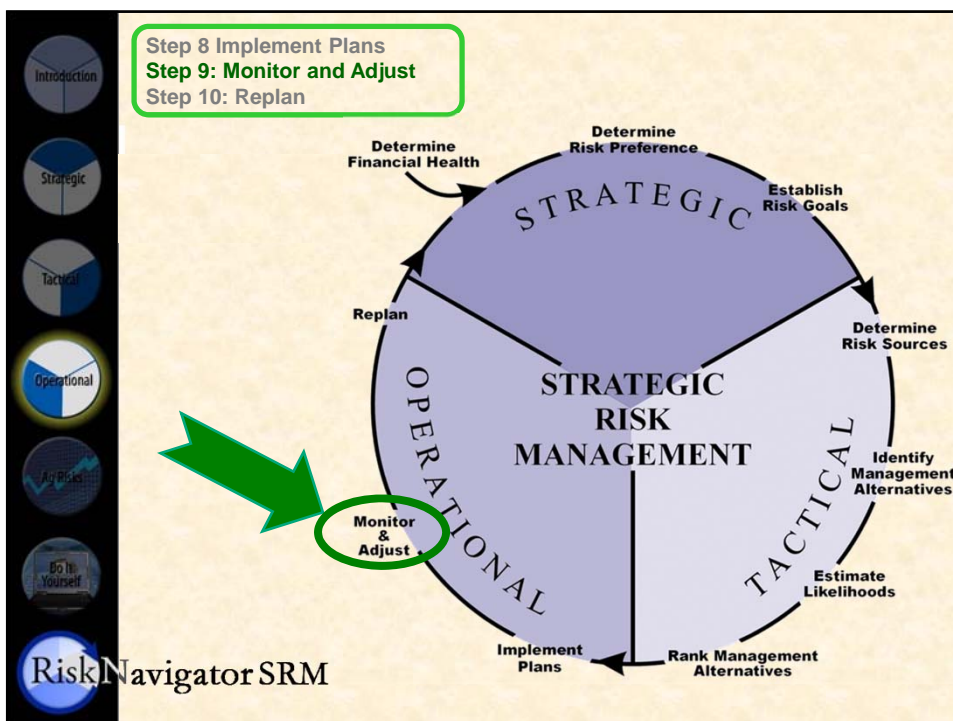
The things that must be done today and tomorrow in order to reach the tactical objectives and strategic goals.



- Introduction
- Strategic
- Tactical
- Operational
- Ag Risks
- Do It Yourself
- RiskN

Operational Management

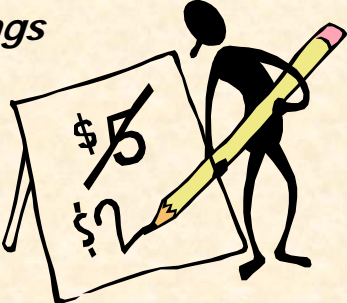
- Putting the strategic plan into *action* on the day-to-day basis necessary. . .
- Following the *tactics* outlined in the tactical level describing *how* to go about the process of. . .
- Achieving the *strategic goals* within the constraints of the *financial health* and *risk preferences* outlined at the strategic level



Introduction
Strategic
Tactical
Operational
Agencies
Do It Yourself

Monitor and Adjust

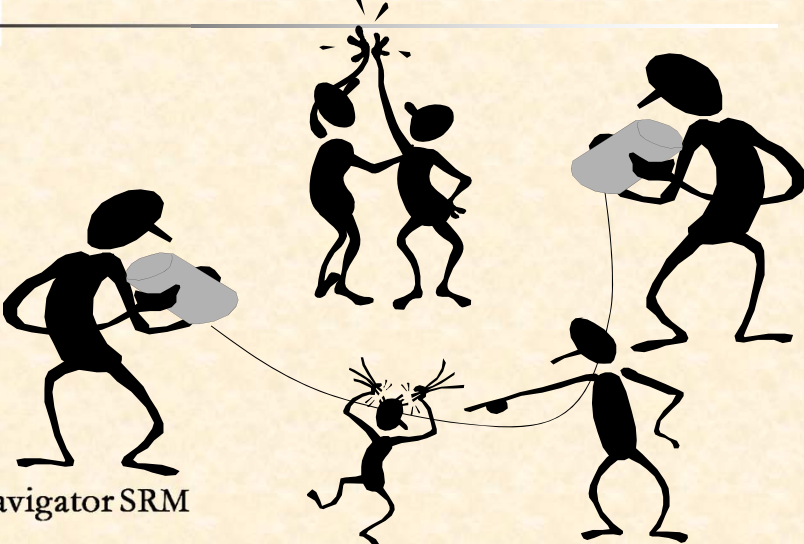
- Concerned with providing *control* for the implementation process
 - Informational control:
doing the right things
 - Behavioral control:
doing things right



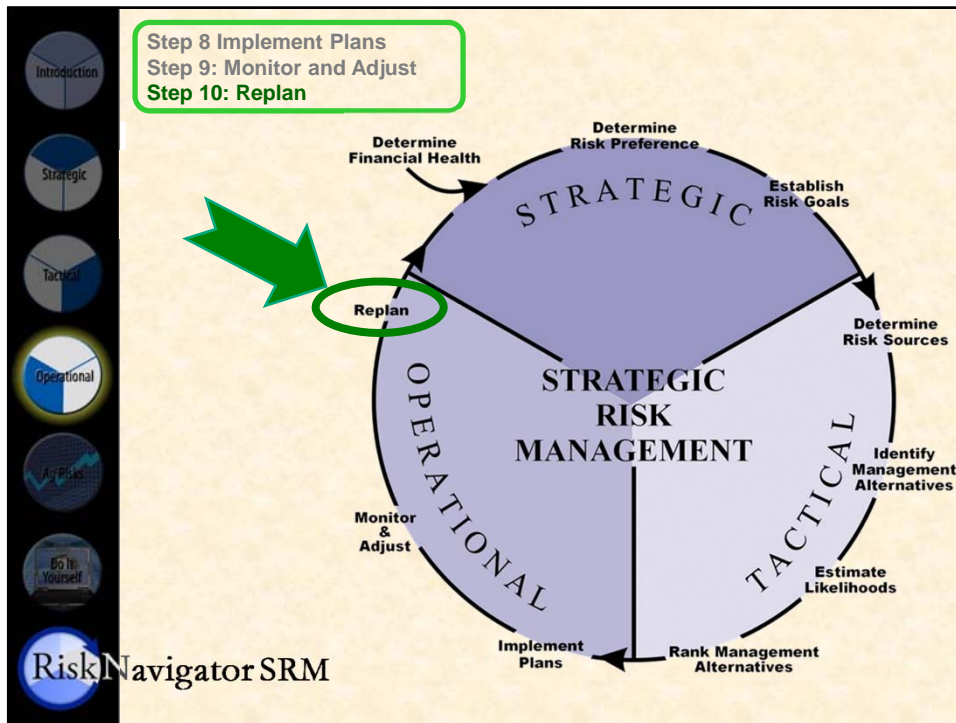
Risk Navigator SRM

Introduction
Strategic
Tactical
Operational
Agencies
Do It Yourself

Communication is Essential



Risk Navigator SRM



Replan

- As we move toward our goals, we should review our chosen route
- Make sure we are still "on course"

Risk Navigator SRM

Introduction
Strategic
Tactical
Operational
Ag Risks
Do It Yourself



Summary

WHERE DO YOU WANT TO GO? STRATEGIC GOALS

WHERE ARE YOU NOW? Determine FINANCIAL HEALTH, RISK PREFERENCES and RISK SOURCES

HOW ARE YOU GOING TO GET THERE? TACTICAL and OPERATIONAL PLANS

Risk Navigator SRM



Introduction
Strategic
Tactical
Operational
Ag Risks
Do It Yourself



Risk Navigator
STRATEGIC RISK MANAGEMENT

- Home
- About SRMP
- Textbook
- Toolbox
- Example Farm
- Ag Survivor
- Instructors
- Conferences
- Sponsors

<http://RightRisk.org>

Risk Navigator SRM



The screenshot displays the RightRisk.org website in a browser window. The main content area features a 'Tool Inventory' section with a list of resources such as 'Action Planning Worksheet', 'Adequacy Achievement Grid', 'Balance Sheet', 'Cash Flow', 'Critical Success Indicator Worksheet', 'Deferred Tax & Missing Data', 'EWS Farm RFD Financial', 'Financial Statements', 'Human Resource Risk Assessment', 'Management Team Roster', 'Marketing Plan', 'Mission Statement Worksheet', 'Resource Flow Plan', 'Stress System Ratio Analyzer', 'Risk Efficiency', 'Risk Influence Calculator', and 'Risk Management Worksheet'. A sidebar on the left contains navigation links: Introduction, Strategic, Tactical, Operational, Ag Risks, and Do It Yourself. Below the browser window, the text 'Risk Navigator SRM' is displayed next to the RightRisk logo, and a green arrow points to the URL 'http://RightRisk.org'.

The diagram is titled 'QUESTIONS?' in large, stylized green letters. It illustrates the Strategic Risk Management process through a circular flow of three levels: Strategic, Operational, and Tactical. The Strategic level involves 'Determine Financial Health', 'Determine Risk Preference', and 'Establish Risk Goals'. The Operational level involves 'Monitor & Adjust' and 'Implement Plans'. The Tactical level involves 'Identify Management Alternatives', 'Estimate Likelihoods', and 'Rank Management Alternatives'. The central text reads 'STRATEGIC RISK MANAGEMENT'. At the bottom, the University of California Agriculture and Natural Resources logo is shown, along with the RightRisk and RMA logos.