Using Financial Statements to Make Business Decisions

NORTHEASTERN
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Introduction

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- Assistant Professor in Management at Northeastern State University
- CPA, previously worked as an auditor at PriceWaterhouseCoopers
- Teach courses on business strategy and decision making for the undergraduate and MBA programs
- Research focuses on the effects of managerial and entrepreneurial cognition on decision making

Learning Objectives

Understand the importance of effective decision-making

Understand the different ways financial statements can be used in decision-making

Discuss ways to improve decision-making

Decision-Making

What is it and Why is it important

Imagine this….

Decisions are Important

Decisions are the coin of the realm in business

Every success, failure, and opportunity seized or missed is the result of a decision

If you can’t make the right decisions quickly and effectively, and execute those decisions consistently, your business will suffer

Decision-Making is Important

McKinsey Global Survey

- Only 20% of respondents said their companies exceled at decision-making
- On average 61% said most of the decision-making time was used ineffectively
  - At an average Fortune 500 company, this ineffectiveness translates to more than 530,000 days of lost working time and roughly $250 million of wasted labor costs per year

More than just cutting waste

Decision-making winners:

- Make good decisions fast
- Execute decisions quickly
- Lead to higher growth rates and overall financial returns from their decisions
  - Respondents of winners twice as likely to say their recent decisions delivered financial returns of at least 20%

Roadblock to Decision-Making Effectiveness

Manager Attention

Attention-based view of the firm

- Firm behaviors result from how decision-makers direct their attention
- Due to decision-makers having limited attentional capacity

Focus of Attention

1. Decision-makers are selective in the issues they attend to at any one time
2. What they ultimately decide depends on what they focus their attention on

Financial statements and their analysis can help focus decision-makers' attention

Financial Statements and Decision Making

More than just numbers on a page

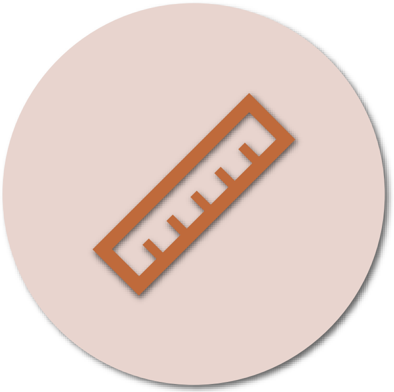
Manager Uses of Financial Statements

1. Measure impact
2. Determine budgets
3. Cut unnecessary costs
4. Think big picture
5. Align across departments
6. Drive team motivation

Financial Analysis Tools

HORIZONTAL ANALYSIS

VERTICAL ANALYSIS



RATIOS

Horizontal Analysis

	2019	2020	Change
Sales	900,000	1,400,000	500,000
Cost of goods sold	400,000	600,000	200,000
Gross margin	500,000	800,000	300,000
Salaries and wages	200,000	325,000	125,000
Office rent	50,000	80,000	30,000
Supplies	10,000	20,000	10,000
Utilities	20,000	30,000	10,000
Other expenses	80,000	120,000	40,000
Total expenses	360,000	575,000	215,000
Net profit	140,000	225,000	85,000

Horizontal Analysis

	2019	2020	Change
Cash	$100,000	$70,000	$(30,000)
Accounts receivable	300,000	500,000	200,000
Inventory	200,000	325,000	125,000
Total current assets	600,000	895,000	295,000
Fixed assets	400,000	700,000	300,000
Total assets	$1,000,000	$1,595,000	$595,000

Vertical Analysis

	Company A	Percent	Company B	Percent
Sales	1,400,000	100%	3,000,000	100%
Cost of goods sold	600,000	43%	1,600,000	53%
Gross margin	800,000	57%	1,400,000	47%
Salaries and wages	325,000	23%	500,000	17%
Office rent	80,000	6%	160,000	5%
Supplies	20,000	1%	40,000	1%
Utilities	30,000	2%	60,000	2%
Other expenses	120,000	9%	200,000	7%
Total expenses	575,000	41%	960,000	32%
Net profit	225,000	16%	440,000	15%

Ratios

Categories of ratios:

- Liquidity
- Activity (or Asset management)
- Leverage (or Debt management)
- Profitability

Liquidity

Current ratio

- Ability to meet short-term obligations of less than one year
- $\text{Current ratio} = \frac{\text{Current assets}}{\text{Current liabilities}}$

Quick Ratio

- Ability to meet short-term obligations without needing to sell inventory
- $\text{Quick ratio} = \frac{\text{Current assets} - \text{Inventory}}{\text{Current liabilities}}$

Activity

Average collection period (ACP)

- Average number of days it takes to collect receivables
- $\text{ACP} = \dfrac{\text{Accounts receivable}}{\text{average daily sales}}$

Total asset turnover

- How efficient the company is at generating revenue from total assets
- $\text{Total asset turnover} = \dfrac{\text{Sales}}{\text{Total assets}}$

Leverage

Debt ratio

- Relationship between total debt and equity in supporting assets
- $\text{Debt ratio} = \frac{\text{Long–term+Current liabilities}}{\text{Total asset}s}$

Cash coverage

- Measures the number of times interest can be paid out of earnings
- $\text{Cash coverage} = \frac{\text{EBIT+depreciation}}{\text{Interest}}$

Profitability

Return on assets

- Ability to manage and use assets to earn profit
- $\text{ROA} = \frac{\text{Net income}}{\text{Total assets}}$

Return on equity

- Ability to use equity investment to earn profit
- $\text{ROE} = \frac{\text{Net income}}{\text{Equity}}$

But wait!

Ratios have limited value by themselves

It’s more useful to compare them:

- History
- Competition
- Budget

Du Pont Equation

Allows us to breakdown the ROA ratio

$$\mathrm{ROA} = \frac{\text{Net income}}{\text{Total assets}} = \frac{\text{Net income}}{\text{Sales}} \text{ x } \frac{\text{Sales}}{\text{Total assets}}$$

$$\mathrm{ROA} = \text{ROS x Total asset turnover}$$

Example

	ROA =	ROS x	Total Asset Turnover
Company A	14%	16%	0.9x
Industry	18%	13%	1.4x

Du Pont Equation

Can also breakdown the ROE ratio

$$\mathrm{ROE} = \frac{\text{Net income}}{\text{Equity}} = \frac{\text{Net income}}{\text{Sales}} \text{ x } \frac{\text{Sales}}{\text{Total assets}} \text{ x } \frac{\text{Total assets}}{\text{Equity}}$$

$$\mathrm{ROE} = \text{ROS x Total asset turnover x Equity multiplier}$$

Tools for Better Decisions

Financial statement analysis tools:

- Horizontal analysis
- Vertical analysis
- Ratios

Help in making better financial decisions as well as operational decisions

These tools don’t necessarily provide answers but help you ask the right questions

Making Better Decisions

Time to put that magic 8 ball away

Steps in the Decision-Making Process

1. Frame the decision
2. Structure your team
3. Consider the timeframe
4. Establish your approach
5. Encourage discussion and debate
6. Navigate group dynamics
7. Ensure the pieces are in place for implementation
8. Achieve closure and alignment

Key Items

Decision-Making is a Process

Don’t think of decisions as individual events, but as a process

1. Frame the issue to ensure the right questions are asked
2. Get consensus on what needs to be decided
3. Analyze the problem
4. Craft a viable solution

Don’t Go It Alone

Involve your team in the decision-making process

- Team decision-making tends to be more effective as it combines individuals’ collective knowledge and experience
- Leads to more innovative solutions
- Helps to overcome hidden biases among the group
- Requires the management of group dynamics

Establish Roles and Responsibilities

Rapid Decision Model, assign the following roles and responsibilities:

- **R**ecommend
- **A**gree
- **P**erform
- **I**nput
- **D**ecide

RAPID Decision Model

Recommend
- People responsible for making a proposal or offering alternatives

Agree
- Responsible for signing off on a recommendation before it moves forward

Perform
- Responsible for implementing a decision once it’s made

Input
- Responsible for providing relevant facts

Decide
- Responsible for making a decision; single point of accountability

Foster the Right Mindset

A collaborative mindset in team decision-making can lead to better decisions

- Decision-making isn’t a contest
- It’s a collaborative problem-solving process
  - Testing and evaluating assumptions
  - Considering alternatives
  - Being open to constructive criticism

Keep Your Eye on the Prize

Don’t lose sight of the goals and purpose of the decision under consideration

- Clearly articulate the goals at the start and reiterate throughout the process

Take Responsibility

A decision has not been made until people know:

- Name of the person accountable for carrying it out
- Deadline
- Names of the people who will be affected by the decision and therefore must know about, understand, and approve it
- Names of the people who must be informed of the decision, even if they are not directly affected by it


HOT ICED
ESPRESSO 40
DOPPIO
FLAT WHITE
AMERICANO
CAPUCCINO
LATTE 45
MOCHA 50
ESPRESSO CONPANI
MACCHIATO 45
JASMIN GREEN TEA
GREEN TEA LATTE 35
THAI TEA 35
LEMON TEA 35
HONEY LEMON
COCOA 35
ENGLISH TEA < TWIN
OVALTINE 30
TAXI
Republic coffee
If you love crema
You are my friends
COFFEE

So what?

Concluding Remarks

Meeting Best Practices

During a decision-making meeting:

- Explore alternatives
- Challenge initial hypotheses
- Appoint a devil’s advocate to present counterarguments
- For cross-functional decisions, encourage collaboration among individuals and avoid silos
- For delegated decisions, empower employees to make decisions through coaching and providing space for people to fail safely

Decision-Driven Organization

Defining characteristic of high-performing organizations is their ability to make good decisions and make them happen quickly

Successful companies tend to follow these principles:

- Some decisions matter more than others
- Action is the goal
- Ambiguity is the enemy
- Speed and adaptability are crucial
- Decision roles trump the organizational chart
- Practicing beats preaching

Recap

Making quality decisions fast is valuable

Where decision-makers focus their attention effects what their company does

Financial statement analysis can be used to focus attention where it matters most

Decision-making is a process that must be managed