Helpful Insights from our March 2023 PIPI-Financial Benchmarking Report

Dr. Ralph Williams Jr.

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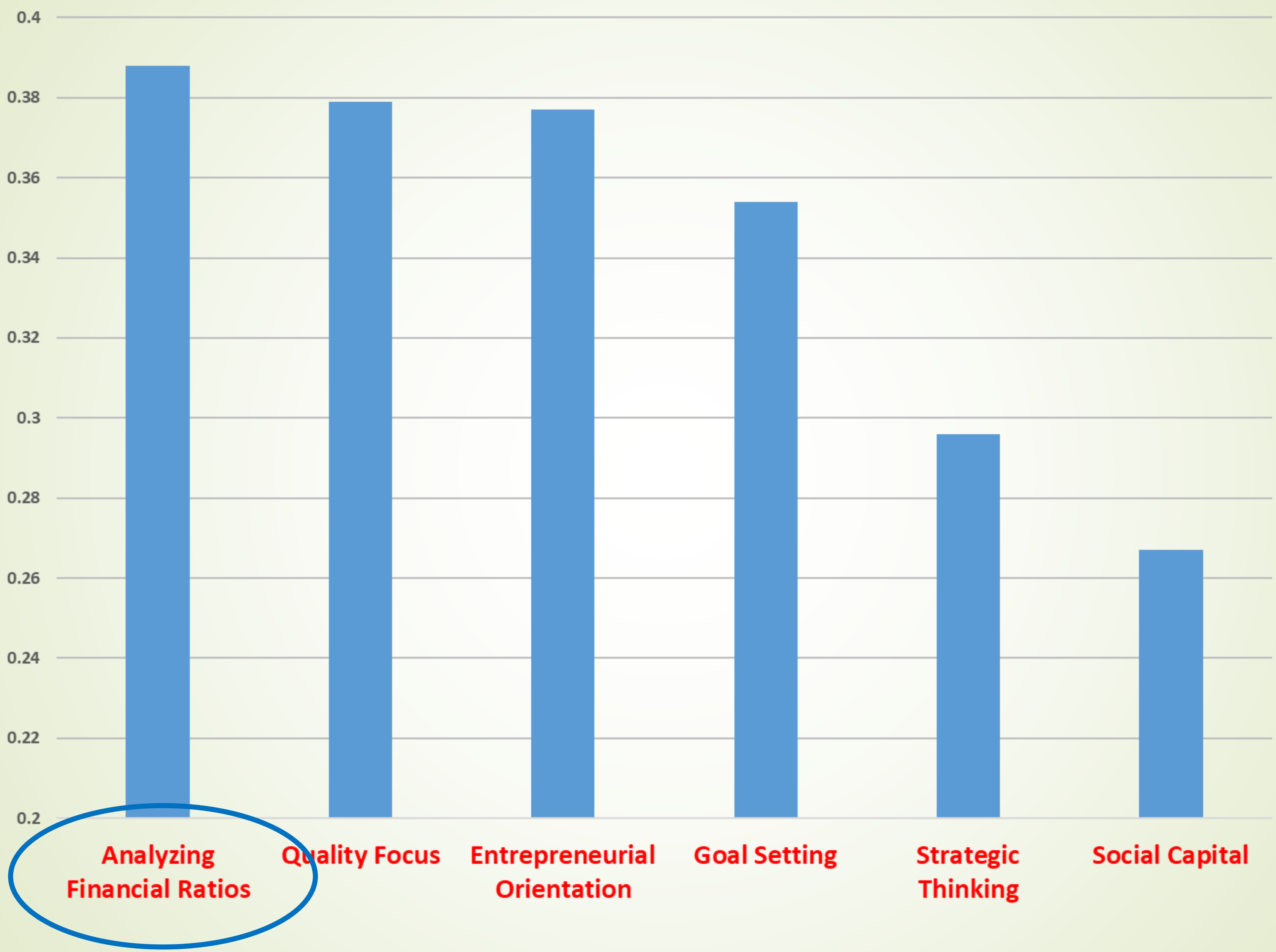
I teach… Entrepreneurial Financial Management

- Entrepreneurship students who have not taken accounting or finance
- This class, and what we will discuss today, is not about accounting
- It's about <u>using</u> the numbers


0.4
0.38
0.36
0.34
0.32
0.3
0.28
0.26
0.24
0.22
0.2
Analyzing Financial Ratios
Quality Focus
Entrepreneurial Orientation
Goal Setting
Strategic Thinking
Social Capital

But…

- *Research indicates that a small proportion of small business leaders **truly** analyze their financials*
- *This has not changed as accounting **technology** has evolved over recent decades*
- *Develop these financial analysis skills – a potential competitive advantage!*
- *It was for us!*

Our goal is to help you draw knowledge that will help you...

- *Improve efficiency – produce more with less*
- *Increase sustainability – mitigate business threats*
- ***Focus on** the right problems – should we focus on selling more or attack costs?*
- *Make your business more attractive to investors and lenders*
- *Improve owner return – That's most likely the return you receive!*
- *Improve profits and cash – That affects what you take home*
- *What's the big message? – The value of numbers!*

Report authors

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- Jones College of Business
- Middle Tennessee State University

The path forward

- **Income statement and cost categories as a percentage of revenue**
- Balance sheet ratios
- Cash management indicators
- Key takeaways

Income statements

- *Use the income statement financial benchmarks to assess your firm's performance!*
- *But more importantly, use our data to open your eyes to a performance improvement path!*
  - *Where should you apply less… or more resources?*
- *More than "budgeting"… strategic planning!*

Income statements

- *Eight income statement tables in our report*
  - *We stive to identify industry segments (strategic groups) in our studies*
  - *Is that a helpful approach?*
- *Table 1 (see right) represents all firms in our study*
- *We provide “high-performers” in four of the eight tables*

All Printing Firms Included in our Survey			
	All Firms	High-Performers	Percentage Differences
Number of firms	104	35	
Total Revenue	100.00%	100.00%	
Materials and Outside Services			
Paper and substrates	23.08%	21.38%	-7.37%
Other chargeable materials	6.99%	6.80%	-2.72%
Outside chargeable services	8.44%	8.50%	0.71%
Total Materials and Outside Services	38.51%	36.68%	-4.75%
Factory Costs			
Payroll including taxes and benefits	19.61%	18.61%	-5.10%
Other factory costs excluding depreciation	11.34%	8.85%	-21.96%
Depreciation	4.03%	5.21%	29.28%
Total Factory Costs	34.98%	32.67%	-6.60%
Cost of Goods Sold	73.49%	69.35%	-5.63%
Gross Profit	26.51%	30.65%	15.62%
Administrative Costs			
Payroll including taxes and benefits	7.23%	5.42%	-25.03%
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Sales and Marketing Costs			
Payroll including taxes and benefits	6.72%	6.82%	1.49%
Other sales and marketing costs	1.14%	1.23%	7.89%
Total Sales and Marketing Costs	7.86%	8.05%	2.42%
Interest	0.78%	0.71%	-8.97%
Income Before Taxes	6.56%	13.04%	98.78%
EBITDA	11.37%	18.96%	66.75%
Employees per $1mm in revenue	4.89	4.79	

Income statements

- *EBITDA*
  - *(Earnings Before Interest, Taxes, Depreciation, and Amortization)*
  - *An excellent financial benchmarking tool*
- *High-performers 67% higher EBITDA percentage*
  - *There are firms in our industry that are “**ROCKING IT**”!*
  - *Little differences in cost categories “add up”!*
  - *Other thoughts related to high-performers high EBITDA?*

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Income statements

- *Paper*
  - *High-performing firms spend a smaller percentage of revenue on paper*
  - *Significant percentage differences, ranging from -7.37% to -15.90%.*
- *Why?*
  - *Higher prices to customers*
  - *Provide* ***more complementary services***
  - *More efficient – less waste*
  - *Buy more inventory, which reduces prices (but our cash management numbers don't support this)*
  - ***Other thoughts?***

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Income statements

- *Total factory costs*
  - *In three industry categories and in the all-firms report, high performers spent less on "factory payroll taxes and benefits" and "total factory costs"*
- *Why*
  - *Economies of scale*
  - *Culture… Lean and TQM*
  - *Revenue growth without increasing factory costs*
  - *Other thoughts?*

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Income statements

- *Depreciation*
  - *Consistently, the high performers incurred more depreciation*
- *Why?*
  - *Owning vs. renting the building*
  - *Investing more in new equipment*
    - *Automation*
- *When considering an equipment investment*
  - *Develop a "proforma" income statement (budget)*
  - *Consider the financial effects (more than passion, as I did sometimes)*
  - *More related to ROA later*

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Income statements

- *Total Administrative Costs*
  - *Consistently, the high performers incurred less administrative costs*
  - *Almost 22% less for all firms (see right)*
  - *Doing more with less administrative resources*
- *Why?*
  - *Staff members taking on multiple roles, outsourcing some administrative functions, increasing revenue without increasing administrative staff, benefiting from technology to replace manual tasks*
  - *Other thoughts?*
  - *Why might lower-performers spend more on admin?*

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Income statements

- *Total Sales and Marketing Costs*
  - *Three out of four high-performer groups spent more on sales and marketing*
  - *This might prompt you to invest more in this cost area*
  - *But again, consider the financial outcomes*
    - *Best and worst outcomes*

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Interest	0.78%	0.71%	-8.97%
Income Before Taxes	[illegible]	13.04%	[illegible]
EBITDA	11.37%	18.96%	66.75%
Employees per $1mm in revenue	4.89	4.79	

Income statements

- *Providing Related Services (Table 8)*
  - *Non-print services that complement and expand the value firms provide to customers*
  - *Name some related services*
  - *Consistent with previous PIPI findings*
  - *A strategic decision*
    - *How can I add more value to what we provide customers?*
    - *Not an easy decision.*
    - *Consult with customers*
    - *Build a proforma (budget)*
      - *Best and worst outcomes*

General commercial printing firms - firms applying a combination of digital, sheetfed offset, and wide format, with some firms focused primarily on digital.			
	All Firm	Significant Revenue from Related Services	Percentage Differences
Number of firms	96	23	
Total Revenue	100%	100%	
Materials and Outside Services			
Paper and substrates	23.33%	18.33%	-21.43%
Other chargeable materials	6.88%	7.00%	1.74%
Outside chargeable services	8.50%	8.74%	2.82%
Total Materials and Outside Services	38.71%	34.07%	-11.99%
Factory Costs			
Factory payroll including taxes and benefits	19.75%	19.41%	-1.72%
Other factory costs excluding depreciation	11.50%	9.78%	-14.96%
Depreciation	3.56%	3.46%	-2.81%
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Cost of Goods Sold	73.52%	66.72%	-9.25%
Gross Profit	26.48%	33.28%	25.68%
Administrative Costs			
Payroll including taxes and benefits	7.07%	8.47%	19.80%
Other administrative costs	4.12%	4.88%	18.45%
Total Administrative Costs	11.19%	13.35%	19.30%
Sales and Marketing Costs			
Payroll including taxes and benefits	7.03%	8.57%	21.91%
Other sales and marketing costs	1.05%	1.51%	43.81%
Total Sales and Marketing Costs	[illegible]	10.08%	[illegible]
Interest	0.68%	0.34%	-50.00%
Income Before Taxes	6.53%	9.51%	45.64%
EBITDA	10.77%	13.31%	23.58%
Employees per $1mm in revenue	5.05	5.42	

The path forward

- Income statement and cost categories as a percentage of revenue
- **Balance sheet ratios**
- Cash management indicators
- Key takeaways

Balance sheet ratios

- *Balance sheet ratios (Table 10)*
  - *Report shows how to calculate these ratios*
- *Current and Quick ratios*
  - *High performers better*
  - *But both groups are STRONG!*
  - *Healthy!*
  - *Prepared for challenges!*

All Printing Firms Included in our Study			
	All Firms	High-Performers	Percentage Differences
Number of firms	56	11	
Current Ratio	3.31	3.59	8.46%
Quick Ratio	2.41	2.92	21.16%
Revenue-to-Total Assets Ratio	1.90	1.97	3.68%
Total Debt to-Total Assets	46.77%	42.38%	-9.39%
Long-term Debt-to-Long-Term Assets	43.43%	43.48%	0.12%
Return on Total Assets (ROA)	13.14%	34.49%	162.48%
Return on Equity (ROE)	24.47%	56.84%	132.28%

Balance sheet ratios

- *Balance sheet ratios (Table 10)*
  - *Report shows how to calculate these ratios*
- *Total Debt-to-Total **Assets (TD-to-TA)***
  - *Total debt = total liabilities*
  - *Which includes total liabilities, including current liabilities*
  - *All firms TD-to-TA is a little higher than high-performers*
    - *Which reinforces our current ratio numbers*
- *Long-term Debt-to-Long-term Assets*
  - *Very close*
- *Use these ratios to assess how much debt you are using*

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Balance sheet ratios

- *Balance sheet ratios (Table 10)*
  - *Report shows how to calculate these ratios*
- *Return on Total Assets (ROA)*
  - *WOW! – the difference between all firms and high-performers*
  - *My benchmark – Mutual fund returns*
  - *If your ROA is less than 17%*
    - *Look for ways to increase net income*
    - *Or consider divesting some under-used assets*
  - *If you are considering investing into more assets*
    - *Project your net income (worst and best case)*
    - *And project your ROA with the new asset added*

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- Balance sheets ratios
- **Cash management indicators**
- Key takeaways

Cash management indicators

- *Cash management indicators (Table 11)*
  - *Report shows how to calculate these ratios*
- *"CREAM"*
  - *Cash Rules Everything Around Me*
- *Profitable, growing, companies can run out of cash*
- *Three cash management indicators*
  - *Days in Inventory*
  - *Days in Accounts Receivable*
  - *Days in Accounts Payable*

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Days in Accounts Receivable	47.43	38.87	-18.05%
Day in Accounts Payable	71.56	61.29	-14.35%
Cash Conversion Cycle	78.15	63.38	-18.90%

Cash management indicators

- *Cash management indicators (Table 11)*
  - *Report shows how to calculate these ratios*
- *Days in Inventory (DI)*
  - *On average, how long does inventory sit on our shelves*
  - *When you see inventory on shelves, see it as CASH*
- *High performers have shorter DI*
  - *Given the paper environment, DI is possibly a more important measure now*
  - *We wondered if high-performers would use their resources to buy more paper?*
  - *Supply chain research – Rational vs. Emotional*
  - *Accounting??*
  - *All said, we see these DIs as high – 3 to 3.5 months of inventory*

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Cash management indicators

- *Cash management indicators (Table 11)*
  - *Report shows how to calculate these ratios*
- *Days in Accounts Receivable (AR)*
  - *On average, how long do our customers take to pay the invoices we send*
- *High performers have shorter AR*
  - *Our approaches*
  - *Should salespeople or admin folks contact customers about AR?*

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Cash management indicators

- *Cash management indicators (Table 11)*
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- *Days in Accounts Payable (AP)*
  - *On average, how long do we take in paying our suppliers' invoices*
- *High performers have shorter AP*
- *Conflict of interest*
  - *Higher AP increases cash in our bank account*
  - *But a higher AP is not taking care of your suppliers*
- *Make rational decisions about how soon to pay bills*
  - *From a big, and individual supplier, view*
  - *Have proactive talks with suppliers when challenging times are coming*

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Cash management indicators

- *Three cash management indicators*
  - *Days in Inventory*
  - *Days in Accounts Receivable*
  - *Days in Accounts Payable*
- *Consider assessing these continuously, every month*

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Key Takeaways

- *High-performing firms spend less on "total materials and outside services."*
  - *When this happens, more revenue is applied to "in-house" costs and moves to the bottom line (profit)*
- *High performers spend less on total factory costs*
  - *Maybe efficiency, cutting costs, or economies of scale*
- *High performers incur less administrative costs*
- *High performers spent more on total sales and marketing costs*
- *Providing related services enhances performance*
- *It appears that higher performers manage cash better– days in inventory, days in accounts receivable, days in accounts payable*
- *There are high performers in our industry, and they ROCK!*
  - *EBITDA and ROA!*

Closing

- *There's a lot more detail in our report*
- *Suggestions for our survey or report?*

- *With more survey participation, we can provide more actionable knowledge!!*

- *Email me if you would like a copy of the slides*
  - *ralph.williams@mtsu.edu*
- *Thank you!*