

***Due Diligence-Financial & Operations Risk
Analysis & Assessment***

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IronHorse is a K.C. based special situation professional services firm with practice specialties in business valuation & appraisal, forensic services & litigation support, CFO services, due diligence, and complex financial & operations restructuring/turnaround consulting.

Tony is an Adjunct Professor of Accounting at Johnson Community College in Overland Park, KS and Rockhurst University in K.C. and serves on the Small Business Reorganization Committee as well as the Fraud Task Force with the American Institute of Bankruptcy.

IronHorse has performed numerous due diligence, valuation, litigation support and restructuring engagements for clients in a variety of industries. Tony has extensive M & A experience on dozens of transactions, especially with financially distressed enterprises.



Risk-Volatility & Uncertainty Are The Enemy of Value

- Three over-reaching questions needing answers:
 - Should we do the deal?
 - At what price?
 - Structure?- Reps, warranties, conditions, exceptions, protections
- Dimensions of risk:
 - Ownership control-decision authority
 - Macroeconomic
 - Industry & Market
 - Technological
 - Operational
 - Trailing & historical
 - Future
 - Avoidable risks, mitigation tools and strategies



Risk-Volatility & Uncertainty Are The Enemy of Value

- The critical relationships.....
- Volatility and predictability
- Uncertainty
- Risk and required rate of return/multiple
- Multiple and value

**COST OF CAPITAL BUILD-UP
RISK RATE COMPONENT MODEL
ACK/GREEN BUILDUP SUMMATION METHOD-JAMES SCHILT RISK PREMIUM GUIDELINES
RISK RATE PREMIUMS:
\$ (000)**

Risk Category	Hi	Med Hi	Med	Med Lo	Lo	None
Risk Score	10	7.7	5	2.5	1	0
RISK-FREE INVESTMENT RATE(20 year T-Bill Rates)		0.04200				
EQUITY RISK PREMIUM		0.06620				
SMALL COMPANY RISK PREMIUM		0.05000				
SPECIFIC RISK PREMIUM:						
<u>COMPETITION:</u>						
PROPRIETARY CONTENT	3					
RELATIVE SIZE OF COMPANY	4					
RELATIVE PDCT OR SERVICE QUALITY	2					
PDCT/SERVICE DIFFERENTIATION	4					
NON-COMPETE	0					
MKT STRENGTH-COMPETITION	6					
MKT SIZE & SHARE	6					
PRICING COMPETITION	8					
EASE OF MKT ENTRY	5					
	38					
# COMPETITIVE RISK FACTORS	9	0.04222				
<u>FINANCIAL STRENGTH:</u>						
BUSINESS CONCENTRATION	2					
CURR RATIO	1					
QUICK RATIO	4					
TOT ASSET TURNS	7					
NET FIX ASSETS TO NET WORTH	4					
LEV RATIO	1					
INT COVERAGE	0					
MGT DEPTH	2					
KEY MAN RISK	8					
FACILITIES CONDITION	4					
ACCTG & OPERATING CONTROLS	1					
OPERATING MARGIN	1					
YEARS IN BUSINESS	1					
INDUSTRY LIFE CYCLE	7					
EARNINGS VOLATILITY	2					
EARNINGS VS COMPETITION	1					
OPER EARNINGS GROWTH RATE	2					
UNION RISK	1					
	49					
# RISK FACTORS	18	0.02722				
INITIAL BUILD-UP DISCOUNTED FUTURE EARNINGS DISC RATE		22.76%				
ADD: ADDITIONAL HIGH-RISK PREMIUM:						
LESS: SUSTAINABLE LT EBITDA GROWTH RATE		-3%				
DISCOUNT RATE		20.26%				
DIVIDED BY:1+TG EBITDA GROWTH RATE		98%				
HISTORICAL CAP RATE-EBITDA STREAM		20.78%				
MULTIPLE		4.811				
WTD AVERAGE PROJECTED EBITDA		728				
VALUE INDICATION		\$ 3,500				



Primary Risk Categories

- Macroeconomic risk
- Industry and market risk
- Operational risk
- Financial Risk



Macroeconomic Risk

- Capital markets
- Commodity & resource markets
- Political stability
- Regulatory climate
- Tax policy
- Inflation
- General economic: growth prospects, consumer demand, household income, investment



Industry & Market Risk

- Life cycle-market & product
- Availability of product & service alternatives/substitutes
- Competitive position & relative share
- Proprietary protection (if any)
- Barriers to entry
- Exit strategy alternatives-barriers to exit
- Financial size/strength relative to competition
- Customer acquisition challenges & costs



Operational Risk

- Cost structure-fixed vs variable costs
- Degree of operating leverage, break-even point, margin of safety
- Customer concentrations & dependencies
- Supplier concentrations & dependencies
- Cost management capabilities
- ERP capabilities
- Customer relationship “ownership”
- Key associate risk



Operational Risk

- Systems quality & capability
- Capital expenditure requirements
- Condition of facilities & equipment
- Litigation exposure
- Product obsolescence
- Process and product quality control
- Technology requirements & capabilities
- Human capital; union influence, HR processes & policies, on-going training & development capabilities, performance management processes/capabilities



Overvalued, Undervalued and Unrecorded Assets/Liabilities

- Importance of going concern enterprise asset valuation
- Recent appraisals-real estate, accounts receivable and inventory, equipment
- Intangible asset valuations:
 - Proprietary interests
 - Brands, tradenames, trademarks
 - Customer knowledge & relationships
 - Exclusivity
 - Employee knowhow & capability
- Recent collateral examinations & review reports
- Importance of plant tours, physical inventory, fixed assets inventory
- Legal due diligence



Overvalued, Undervalued and Unrecorded Assets/Liabilities

- Detailed audit of all balance sheet accruals.
- Audit trailing 36-48 month warranty history, warrant policies.
- Internal control compliance audit of purchasing, receiving, accounts payable & disbursement processing.
- Examine bank reconciliations for trailing 36 months (watch out for released, but unissued checks.
- Public records searches-liens, commercial credit filings, litigation, attachments, refinancings, related party & affiliated entities, guarantees, tax lien indications.
- Review revenue cycle control environment-customer master file access/maintenance, cash receipts, accounts receivable posting, account adjustments.
- Study customer returns & credit memo history, customer return policies,



Property Assets

- Fixed assets physical inventory
- Examine general ledger to fixed asset system reconciliations
- Plant tours
- Study & analyze trailing 36-48 month maintenance & repair history
- Examine commercial property & casualty insurance coverages & claims history trailing 48-60 months
- Assess predicative, preventive maintenance systems, processes & capability
- Review capital budgeting capabilities
- Trailing 48 months capital expenditure investments/history



Property Assets

- Review capital expenditure authorization processes & policies
- Review post-audit of capital expenditures
- Review IT security & controls
- Recent real estate & equipment appraisals
- Audit all major fixed asset additions & dispositions trailing 48 months



Tax Considerations

- Obviously, consider engaging qualified, competent professional to coordinate the tax due diligence.
- Tax considerations of the deal structure can be substantial from perspective of buyer and seller.
- Stock vs asset sale.
- Availability of NOL carry-forwards.
- Legacy exposure-can carry forward to successor entity in some instances-sales & use tax, ad valorem taxes, some employment taxes.
- Other carry-forward potential-ITC, capital losses, etc.
- Flow-through vs C-corporation considerations
- Most transactions are asset purchases by a NewCo-Should be extremely persuasive rationale for buying the stock and all the legacy claims exposure that comes with it.
- Use of tax professional in drafting the APA, structuring the deal
- Do NOT let the tax tail wag the dog!!!!



Financial Analysis

- Critical importance of a comprehensive, detailed financial value model & supporting analysis.
- Importance of industry benchmarking comparatives for context-will impact required rate of return, estimated range of value build-up.
- Range of value estimation
- Four building block foundational perspective:
 - Liquidity & efficiency
 - Profitability
 - Solvency
 - Value
- Vertical analysis-common size financials
- Horizontal analysis of common size financials, critical building block financial & operating metrics



Liquidity & Efficiency

- Net working capital turnover-velocity
- Simulated borrowing base
- Current & acid test ratio
- Days cost of goods sold (COGS) in trade accounts payable
- Accounts receivable turnover, days sales in AR
- Inventory turnover, days COGS in inventory-NOTE> ALWAYS analyze in terms of customer service level performance.
- Aged accounts receivable analysis
- Aged inventory analysis
- Inventory quality ratio
- ROI to inventory analysis by SKU



Profitability

- EBITDA % to revenue
- Gross profit % to revenue
- SGA (operating expenses) % to revenue
- Return on average assets
- Return on equity
- Customer profitability
- Product profitability
- Detailed expense trends by key category-% to revenue
- VOLATILITY is the # 1 enemy of VALUE!!
- Focus on trends, variances, unusual amounts, inconsistencies, exceptions



Profitability

- Operating risk analysis
 - Degree of operating leverage
 - Break-even analysis
 - Margin of safety analysis
 - Contribution margin after variable costs analysis
 - CVPA analysis necessary for financial projections
 - Critical model mistakes by omitting operating risk analysis



Solvency

- Leverage (debt to equity) ratio
- Total & secured debt turnover
- Debt service coverage ratio
- Sustainable sales growth rate
- Altman 4-variable Z-factor trend analysis



Value

- Beware “romance of the deal” momentum & pressures.
- There may be “agendas” at play, so proceed with extreme caution.
- The need for independent buy or sell-side due diligence.
- Know with confidence the founding owner of his/her “first born” attaches tremendous intrinsic emotional value he/she will never be compensated for.
- The acquirer is buying an expected future stream of cash, in the face of uncertainty & risk.
- The “auction” vs exclusivity tension.
- Financial vs. strategic buyers-strategic premiums.



Range of Value Model

- Challenge in finding/applying comparable transactions.
- Methodologies:
 - Net present value of projected cash flows using risk-adjusted cost of capital (required rate of return).
 - Trailing, normalized capitalized EBITDA using firm cap rate.
 - Trailing, normalized EBITDA using industry multiple.
 - Excess assets/Treasury method
 - Reasonable rate of return using industry ROI
 - Maximum leveraged purchase price using expected debt service coverage & simulated borrowing base



Normalization Adjustments

- Owner/officer compensation
- Ownership distributions
- Related party & affiliated due to/from impacts
- Impact of anticipated strategic actions:
 - Consolidation
 - Reduction in Force
 - Asset dispositions-business units, locations, equipment, etc.
 - Product line rationalization
 - Synergies
- One-time start-up impacts, inefficiencies



Due Diligence Checklist & Worksheets