

A photograph of two men in business attire standing in a warehouse. They are looking at a tablet held by the man on the right. The man on the left is pointing upwards towards a high shelf of a pallet rack. The warehouse is filled with cardboard boxes on the shelves.

GBRWCONSULTING

SME CREDIT ASSESSMENT

Using an expert judgement credit rating tool to improve consistency, reliability, and efficiency of SME credit analysis and assessment.

WHY CHOOSE AN EXPERT JUDGEMENT MODEL FOR SMES?

Historical credit data disorganised or not available?

Financial statement reporting unreliable?

Demand for risk-based pricing or capital allocation?

Credit decisions opaque or inconsistent?

Regulation needs internal ratings system?

Reduce lending costs and improve service?

BESPOKE LARGE CORPORATE CREDIT ASSESSMENT NOT SUITABLE FOR SMES

GBRW
CONSULTING



Home



Commercial
Risk Model



A rank-order credit rating tool should allow us to sort our portfolio by customer credit-worthiness, derived from the scoring of a consistent and relevant set of criteria.

Actions

+ New Customer

Search String

Search

☰ List of Commercial Customers

Commercial Customer	Risk Model	Total Score †
Luxury Leather Limited	General Commercial	0.72
Jones & Son Building Supplies	General Commercial	0.67
Phil's Pharmacies	General Commercial	0.52
Cyberdine Systems	General Commercial	0.46
Delta Fisheries Limited	General Commercial	0.45
Pham Ngu Lao Fish Sauce	General Commercial	0.44
Beta Beverages Limited	General Commercial	0.44
Thompson's Tanneries Limited	General Commercial	0.29

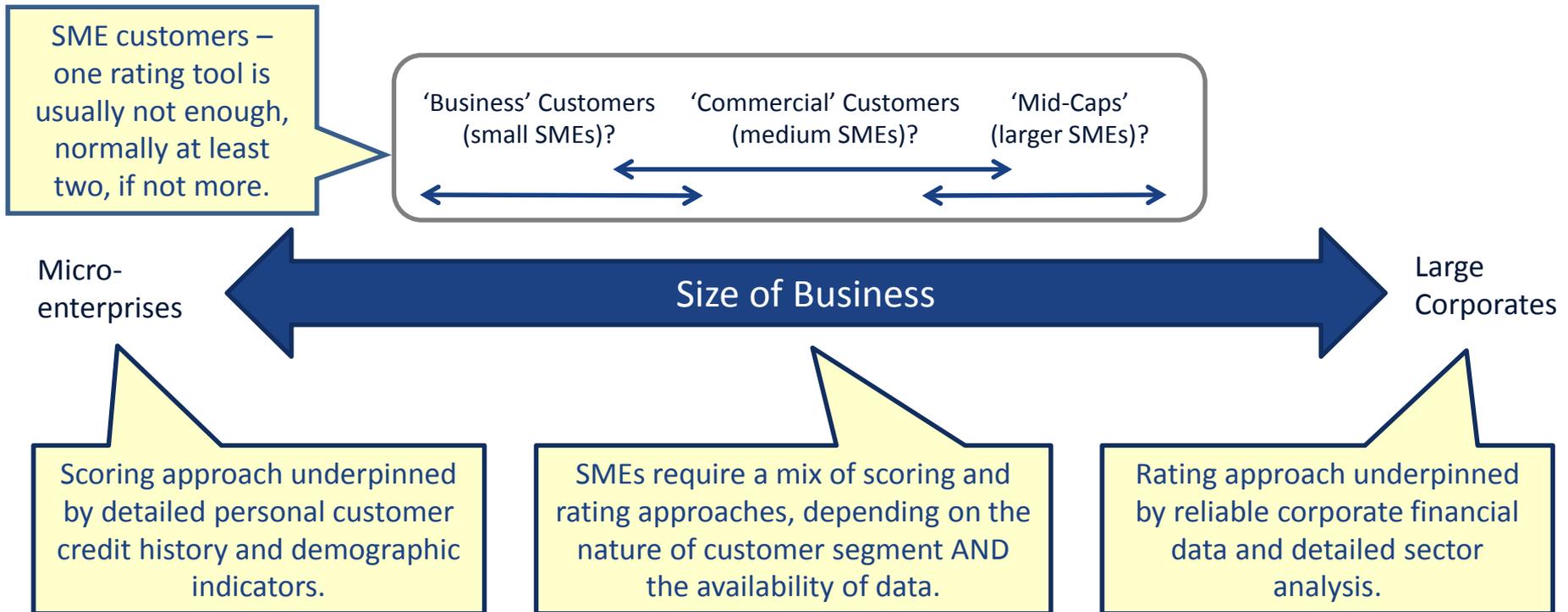
**START WITH A RANK ORDER CREDIT MODEL
BEFORE TACKLING PD AND LGD MODELS**

BASIC STRUCTURE OF EXPERT JUDGEMENT MODEL



**INDUSTRY SECTOR ANALYSIS IS THE
FOUNDATION OF EXPERT JUDGEMENT TOOL**

DIFFERENT APPROACHES FOR DIFFERENT CUSTOMER SEGMENTS



NEED TO **ADAPT SME CREDIT SCORING AND RATING MODEL FOR TARGET MARKET**

RISK SEGMENTATION FOR SME CUSTOMERS

Commercial Segment Risk Ratings

General Commercial		Fishing & aquaculture	Builder's Merchants	Beverage Processing	Leather manufacture	Web Design	Pharmacies
High IP, Low Capital Start-up	Striving/ Solo	52	51	57	59	57	57
	Established/ Closely Held	54	52	58	60	58	58
	Serial Entrepreneur/ Turnaround Specialist	65	63	70	72	69	70
	Complex/ Commercial	67	65	71	73	71	71
	High Growth/ Diversified Ownership	67	65	72	74	71	72
		68	66	73	75	72	73

Commercial Profile Bias

Commercial Profile Bias		Fishing & aquaculture	Builder's Merchants	Beverage Processing	Leather manufacture	Web Design	Pharmacies
High IP, Low Capital Start-up	Striving/ Solo	33	33	34	34	34	35
	Established/ Closely Held	37	37	38	39	39	39
	Serial Entrepreneur/ Turnaround Specialist	71	71	72	72	73	73
	Complex/ Commercial	76	76	78	78	78	78
	High Growth/ Diversified Ownership	77	77	79	79	79	79
		81	81	82	82	82	82

Industry Sector Bias

Industry Sector Bias		Fishing & aquaculture	Builder's Merchants	Beverage Processing	Leather manufacture	Web Design	Pharmacies
High IP, Low Capital Start-up	Striving/ Solo	56	57	64	67	69	69
	Established/ Closely Held	57	58	65	68	70	70
	Serial Entrepreneur/ Turnaround Specialist	61	62	69	71	73	73
	Complex/ Commercial	61	62	69	71	73	73
	High Growth/ Diversified Ownership	62	62	69	72	74	74
		62	63	70	72	74	74

Risk scores for SME segments can be calculated using two key vectors, the industry sector and the commercial 'profile', and visualized using a 'heat map.'

HINTS & TIPS FOR RISK SEGMENTATION

- ➔ Do not be slaves to ISIC codes, use judgement to cluster industry sub-sectors with common risk characteristics.
- ➔ Risk segment scoring is 'Through The Cycle' (TTC) so take a long-term view.
- ➔ Consider using a specialist internal team to co-ordinate industry and customer analysis, and enforce a consistent and robust approach.
- ➔ Should be a collaborative process, and contrarianism to be encouraged!
- ➔ Risk segmentation also allows for practical portfolio management techniques such as stress-testing and scenario analysis.

**HARMONISE RISK & MARKET SEGMENTS TO
AVOID FRICTION & EXPLOIT SYNERGIES**

INDUSTRY SECTOR ECONOMIC ANALYSIS & RATING TOOLS

Commercial Risk Model Customer Relationships

List of Industry Sectors

Industry Sector	Description	View/Edit	Delete
Beverage Processing	The manufacture of beverages including but not limited to soda pop and carbonated beverage, all varieties of fruit juice, and bottled waters of any alcoholic, dairy or tea or coffee derivatives.	View/Edit	Delete
Fishing & aquaculture	Includes capture fishery and aquaculture, covering marine or freshwater the production of crustaceans, molluscs and other marine organisms and aquatic plants, pearls, sponges etc).	View/Edit	Delete
Leather manufacture	Includes dressing and dyeing of fur and the transformation of hides into leather by tanning or curing and fabricating the leather into products for final consumption. It also includes the manufacture of similar products from other materials...	View/Edit	Delete
Builder's Merchants	Wholesalers to the building and construction trade of all necessary supplies and tools. Products include but are not limited to lumber, steel fabrication, cements and mortars, and plastic, glass and electrical products, and power tools and and...	View/Edit	Delete
Web Design	The design, development, maintenance, and administration of PC and mobile device websites for third parties including hosting and data services, application development, and graphic design	View/Edit	Delete

You'll still need your toolbox of regular analytical techniques like PESTLE, Porter's, and SWOT analysis amongst others!

Be precise and relevant in your selection of industry sectors. Avoid being too generic with sectors like 'Agriculture' or 'Mining'. What sort of agriculture? What sort of mining?

USING A TEMPLATE FOR INDUSTRY SECTOR ECONOMIC ANALYSIS

View/Edit Industry Sector

Sector Title*

Fishing & aquaculture

Sector Definition

Description

Includes capture fishery and aquaculture, covering marine or freshwater environments, with the production of crustaceans, molluscs and other marine organisms and products (e.g. aquatic plants, pearls, sponges etc).

Economic Sensitivity Risks

Interest Rate Sensitivity*

Neutral

Exchange Rate Sensitivity*

Quite Negative

Business Cycle Sensitivity*

Neutral

Inflation Sensitivity*

Neutral

Political Sensitivity Risks

Fiscal Policy Sensitivity*

Neutral

International Trade Sensitivity*

Quite Negative

Government Sensitivity*

Neutral

Competitive Risks

Industry Stage Sensitivity*

Quite Positive

Competitive Intensity*

Quite Positive

Value Chain Sophistication*

Quite Positive

Supplementary Risks

Demographic Sensitivity*

Quite Positive

No Rating

Very Positive

Quite Positive

Neutral

Quite Negative

Very Negative

Environmental Sensitivity*

Neutral

Climate Change Sensitivity*

Neutral

Use a standard template for evaluating industry risk, consisting of a range of political, economic, social, and environmental criteria.

Use spinners and drop-down menus to enforce data validation, and consistency.

USING A TEMPLATE FOR CUSTOMER PROFILE ANALYSIS

Commercial Risk Model **Customer Relationships**

List of Commercial Profiles

Commercial Profile	Description	Actions
Established/ Closely Held	An established business which, while relatively small, has demonstrated a strong track record and trading history, with a small number of long-term and competent owner-managers.	View/Edit Delete
High IP, Low Capital Start-up	Typically a individual or small cadre with highly specialist skills, experience and/ or contacts. Seeking financial independence and flexibility through being owner-managers, and the satisfaction and rewards of owning and building their own...	View/Edit Delete
Serial Entrepreneur/ Turnaround Specialist	An established independent investment specialist with a track record of successful ventures and turnarounds, and a with a significant pool of personal capital to contribute.	View/Edit Delete
High Growth/ Diversified Ownership	Donec mattis sed purus a bibendum. Proin id iaculis magna. Donec posuere dolor ac nisi rhoncus, sit amet bibendum magna auctor. Curabitur nec laoreet quam. Nam neque elit, tunc sit amet tincidunt at, sollicitudin sit amet erat. Sed lacinia...	View/Edit Delete
Striving	...tradesmen or independent consulting specialists focused on a	View/Edit Delete
		View/Edit Delete

Show desktop

Customer Profiles (sometimes called ‘personas’) are a useful way of distinguishing between firms with very different characteristics which operate within even quite a narrowly defined industry sector. Often quite closely correlated with firm size as a proxy for financial durability.

APPLICATION OF MODEL TO INDIVIDUAL CUSTOMERS

Try to make rating score as transparent as possible to Relationship Managers

Luxury Leather Limited

Company Details

Registration ID	NH857394756LQ
Registration Date	2003-04-04
Registration Type	Limited Liability Company

Customer Details

Customer since	2008-11-05
Description	Luxury Leather is a leading leather manufacturer, majority owned by a family concern. It focuses on processing tanned hide into a variety of mid-range handbags, briefcases, and travel luggage for both domestic and export markets. Luxury Leather wholesales leather goods under its own brand in the domestic market, and number of international brands with vanilla items. It has a factory, a design studio, a local sales office, and number of agents operating in key international markets.
Customer Set	Comm/Manuf
Relationship Manager	Terry Chan

Segmentation

Commercial Profile: Residential/Corporate

Industry Se

Risk Pro

Risk Weigh

Final Scor

Risk Rating

					↓ Commercial Profile Score	0.73	Weighting	0.30	
					↓ Industry Sector Score	0.72	Weighting	0.70	
		↓ Segment Score	0.72	Weighting	0.30	← Total	0.72	Total	1.00
		↓ Business Risk Score	0.70	Weighting	0.40				
		↓ Financial Statement Score	0.73	Weighting	0.30				
Final Score	0.71	← Total	0.71	Total	1.00				

DESIGNING A BUSINESS RISK REVIEW TEMPLATE

[Edit Business Risk Review](#)

Review Details

Review Date*
2014-06-23

Review Comments
Meeting with Financial Controller and site inspection.

Ownership & Management

Ownership & Governance Rating*
Quite Positive

Succession Planning Rating*
Quite Positive

Management Experience Rating*
Quite Positive

History & Reputation

Trading History Rating*
Neutral

Repayment History Rating*
Neutral

Trade Credit Rating*
Neutral

Planning & Execution

Strategic Management Rating*
Quite Positive

Financial Management Rating*
Quite Positive

Marketing & Sales Rating*
Quite Positive

Policies & Procedures Rating*
Very Positive

Facilities & Equipment Rating*
Very Positive

Human Resources Rating*
Quite Positive

Market Positioning

Market Share Rating*
Quite Positive

Customer Base Rating*
Quite Positive

Product Range Rating*
Quite Negative

Supply Chain Rating*
Quite Negative

Submit

We like to look at a business from a number of key perspectives:

- ⇒ Ownership & Management
- ⇒ History & Reputation
- ⇒ Planning & Execution
- ⇒ Market Positioning

It's useful to supplement the Business Risk Review template with a structured questionnaire to support Relationship Managers.

MAKE SURE TO FULLY TRAIN RMS & CREDIT STAFF AS GOOD JUDGEMENT IS CRITICAL

FINANCIAL STATEMENT & RATIO ANALYSIS FUNCTIONALITY

[Edit Financial Statement](#)

Statement Details

Statement Date*
2011-12-31

Remarks
Audited by *WJ&C Cummings*

Statement Type
Audited - Qualified

Provide previous period for comparison purposes.

Assets				Liabilities			
Item	Previous	Current	Item	Previous	Current		
Current Assets	1,109,403.00	1,173,107.00	Current Liabilities	832,533.00	724,147.00		
↳ Debtors	805,060.00	814,874.00	↳ Short Term Creditors	832,533.00	724,147.00		
↳ Stock	287,456.00	324,005.00	Long Term Creditors	1,025,699.00	965,220.00		
Net Fixed Assets	1,411,790.00	1,265,375.00	Capital & Reserves	662,961.00	749,115.00		
			↳ Called Capital	100,000.00	150,000.00		
			↳ Retained Earnings	562,961.00	599,115.00		
TOTAL	2,521,193.00	2,438,482.00	TOTAL	2,521,193.00	2,438,482.00		

Income Statement				Cash Flow	
Item	Previous	Current	Item	Current	
Turnover	4,102,320.00	3,852,345.00	Operating Cash Flow	315,298.00	
Gross Profit	1,220,241.00	1,016,184.00	Net Capital Spending	-20,441.00	
Operating Expenses	816,650.00	778,464.00	Change in Net Working Capital	172,090.00	
↳ Depreciation	129,314.00	125,974.00	Creditor Cash Flow	136,879.00	
Operating Profit	403,591.00	237,720.00	Owner Cash Flow	26,770.00	
Interest	85,444.00	76,400.00			
Profit Before Tax	318,147.00	161,320.00			
Tax	95,444.00	48,396.00			
Net Profit	222,703.00	112,924.00			
↳ Dividends	148,372.00	76,770.00			
↳ Earnings Retained	74,331.00	36,154.00			

Automate calculation of simplified cash flow statement.

Use data validation to ensure accounts reconcile.

Active Record Ratio Analysis

Latest Ratio Analysis

Aspect	Metric	Current	Previous	Trend	Rating	Weight	
Cash Flow	Operational Cash/ Interest	4.1	5.1	-19.9%	↓	5	
	Operational Cash/ Turnover	10.0%	10.7%	-6.2%	↓	2	
	Debt Repayment Period	1,117 days	856 days	-99.9%	↓	1	
Operating Performance	Gross Margin	26.4%	29.7%	-11.2%	↓	3	
	PBT/Assets	6.6%	12.6%	-47.7%	↓	2	
	Sales Growth	-6.1%	N/A	N/A	?	2	
Capital Structure	Total Debt/EBITDA	4.6	3.5	31.9%	↑	1	
	Total Debt/Assets	69.3%	0.7	524.1%	↑	2	
Liquidity	Current Ratio	162.0%	133.3%	21.6%	↑	4	
	Stock Turnover	31 days	26 days	21.2%	↑	3	
	Receivables Turnover	77 days	72 days	7.5%	↑	3	
TOTAL						12.2	23.5

The inclusion of real-time accounting data could be a game-changer in terms of quantitative behavioural assessment and/ or ongoing portfolio management.

Help out Relationship Managers by automatically spreading accounts and calculating ratios and trends.

Don't limit financial analysis solely to 'scored' criteria – give your Relationship Managers the information they need to make better judgements

HINTS & TIPS FOR SELECTING THE RELEVANT ACCOUNTING RATIOS

- ➔ Concentrate on ratios that highlight the ability or otherwise of the borrower to repay the obligation.
- ➔ Avoid duplication by eliminating criteria which do or are likely to have high degrees of correlation.
- ➔ Prefer ratios which show a reasonable degree of variation – i.e. are actually useful in discriminating between financial performance.
- ➔ Discriminate a little against those which tend towards a naturally high degree of variation in relation to growth.

REMEMBER THAT **'CASH IS KING'** & MAKE SURE TO EMPHASISE CASH-FLOW RATIOS

SETTING & CALIBRATING RISK CRITERIA WEIGHTINGS

The image shows a software interface for configuring risk weighting profiles. The main window is titled "View/Edit Commercial Risk Weighting Profile". It contains several sections for setting weights:

- Risk Weighting Profile Title***: General Commercial
- Description**: A sample weighting model for general commercial and SME businesses.
- Overall Weightings**:
 - Risk Segment Weighting***: 0.40
 - Business Risk Weighting***: 0.30
 - Financial Statement Weighting***: 0.30
- Commercial Profile**
- Industry Sector Criteria**
- Business Risk Criteria**
- Ownership & Management**:
 - Ownership Governance**: 1.00
 - Succession Planning**: 1.00

A callout box on the right side of the interface contains the text: "Calibrating criteria and weightings will be ongoing, and should 'evolutionary not revolutionary'. Consider developing parallel models for comparison purposes."

Calibrating criteria and weightings will be ongoing, and should 'evolutionary not revolutionary'. Consider developing parallel models for comparison purposes.

KEY LESSONS IN DEVELOPING EXPERT JUDGEMENT CREDIT MODELS

Always customize to local market and target customers

Technology should be an enabler not and inhibitor

Bias financial analysis towards cash-flow indicators

Be wary of 'black box' solutions

Resist temptation to over-emphasise financial data.

Do not let imperfect data prevent progress

VITAL THAT FINANCIAL INSTITUTION HAS OWNERSHIP & TRUST IN CREDIT MODEL

IMPLEMENTING AN EXPERT CUSTOMER RATING TOOL

- ➔ Make sure to align credit policies and procedures with any model to reinforce compliance with agreed approach.
- ➔ Supplement with a little technology and software development to increase efficiency, and data accessibility, and data reliability (remember 'GIGO').
- ➔ Consider enabling through a secure web application to allow Relationship Managers to use it 'on-the-road'.
- ➔ In the future, with sufficient data, it may be possible to implement a quantitative solution based on financial data points, however unlikely that this will entirely replace robust qualitative analysis overlay.
- ➔ A useful addition could be a segment 'peer group' ranking which we have seen used before.

**AS USUAL THE BIGGEST CHALLENGE WILL BE
OVERCOMING RESISTANCE TO CHANGE**

SUGGESTIONS WELCOME FOR FUTURE TOPICS...

Please feel free to suggest topics for future content. Some ideas from our side include:

- ➔ How to overcome resistance to implementation of credit rating tools?
- ➔ What are the pros and pitfalls in implementing risk-based pricing?
- ➔ How to establish effective credit marketing limits using a risk rating model?
- ➔ How to transpose rank order credit ratings into PD models?
- ➔ What is the potential application of peer group analysis to supplement a rating model?
- ➔ How can we develop facility level EAD and LGD calculations?
- ➔ What is the potential for improved policies and processes to enhance credit assessment and reduce costs?

CONTACT DETAILS & FURTHER INFORMATION



Mike Coates, Director

- ⇒ You can find out more about GBRW Consulting by visiting our website on <http://www.gbrw.com>
- ⇒ Visit my LinkedIn profile at <http://uk.linkedin.com/in/mikecoates73> and feel free to connect
- ⇒ Email us at mail@gbrw.com