VGRS Calculations & Analysis

Value, Growth, Risk, Satisfaction with DQI

Synchronist Business Information System ™

Blane, Canada Ltd.

VGRS Calculations and Analysis

Value, Growth, Risk, Satisfaction

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Includes information from:
2012 Synchronist North American Data Study

Synchronist Business Information System®
The Synchronist System's VGRS Matrix Analysis methodology
is covered under U. S. Patent No. 6,757,660 B2.
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Synchronist System VGRS Calculations

The Value, Growth, Risk, Satisfaction, and Technology (VGRST) calculations are a patented features of the Synchronist Business Information System® company level analysis. **They are designed for INTERNAL USE ONLY.** They are not intended for distribution to investors or company executives.

The company level analysis determines the company's:

- Value to the community
- Growth potential
- Risk of downsizing, leaving, or closing
- Satisfaction with the community as a place to do business
- Technology Orientation (version 3.1 and above only)

Systematic, objective company level analysis has never before been accomplished in economic development. To conduct the company level analysis, information from a company's background information, as well as, information collected directly from company executives responding to the on-site survey questions is considered. The determination for each factor is based on a complex analysis of multiple inputs. For example:

- Value evaluates answers to approximately 21 questions and nearly 100 data points
- Growth approximately 20 questions and roughly 85 data points
- Risk approximately 18 questions and 90 data points
- Satisfaction approximately 16 questions and 70 data points

Adding to the complexity, each question contributes to understanding more than one factor. For example, a company with an aggressive R&D division is not only more valuable to the community for that reason, but has a higher growth potential through new product introductions. Also, a headquarters is more valuable than a distribution facility, and a company employing a high percentage of management/research/technical positions is more valuable because of payroll and skill sets than employment comprising mostly of production workers. Consequently, total employment is also a value consideration. A company increasing training and providing a majority of new skills training is more valuable to a community than a company investing in just remedial (still valuable, but less valuable) training or no training. In addition, companies that export also provide value to the community.

Given the number of variables, a few variables, such as total employment, are minimized. The difference in the contribution to value of a 250 employer versus an employer of 15 is not significant. To keep this in a proper perspective, the Company Rankings by Peer Group analysis is categorized by employment so the fishing lure company of 10 employees is not compared directly to the manufacturer of 2,500 employees. Scale does matter.

It is important to remember that there are other factors such as total payroll, tax base, community involvement, and philanthropy contribute to the Value analysis. These are beyond the scope of Synchronist's focus, but can be taken into consideration locally. Synchronist focuses only on specific value indicators that can be gathered in conversation and are completely objective. We selected a group of issues that presented a totally objective value rating that could be compared regardless of industry or size. Our analysis of the interview findings for VGRS over time indicate we have succeeded.

Risk includes factors such as no room to grow, ownership changes, negative corporate attitudes, management changes, sister facilities, the condition of facilities, and lease dates. Some of this information comes from the background profile, while some comes directly from the interview.

While missing data on the background form or interview form will reduce a specific company's ratings, the breadth of variables taken into consideration insures that the difference is minimized unless a substantial number of questions are missed; in which case, the available information would be of little use anyway. We have had clients test Synchronist against known high-flyers as well as down-n-out dogs. In each case, the readings have proven accurate, supporting the judgment of the development professional.

Objective Assessment

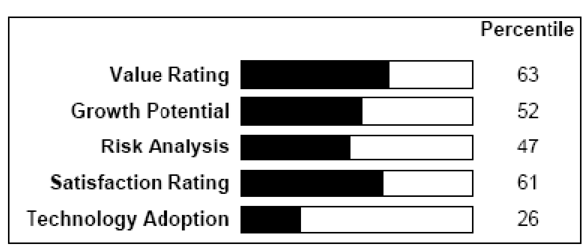
The Synchronist System's interview tool has been designed for use by professionals as well as volunteers. The design insures an objective assessment regardless of interview skill. Synchronist's analysis function provides an objective assessment that can be taken into consideration with other local factors. These comparisons are intended to be an objective point of departure for the discussion on value, risk, growth, and/or satisfaction. These are not final conclusions; however, it is a great deal more than development professionals have ever had before. To manage this volume of information, Synchronist uses a proprietary analysis (patented) methodology designed exclusively for this task by Blane, Canada Ltd. To allow direct comparisons, each output (value, growth, risk, and satisfaction) is shown in numeric form, a two digit number between 1 and 99. Therefore, while these calculations provide an excellent point of reference, they are not to be viewed as rigid points of demarcation defining a community's growth potential. A company ranking of 70 is a subjective number. For this number to be meaningful it requires the context of other companies in the community, a region, or a state/province.

The purpose/benefit of having the VGRS evaluation is that it helps provide an objective comparison of the businesses in the community's "portfolio" of businesses.

Reading VGRS

The VGRS information shows in three places: Company Summary Report, Company Rankings by Peer Group, and in the x-Tool.

On the company summary report, the specific assessment of the company is presented along with a Data Quality Index number also from 0 – 100. The DQI helps the reader understand the reliability of the company assessment. The



Data Quality Index (DQI): 100 High

lower the DQI, the less accurate (more unreliable) the assessment will be. The DQI is described in detail elsewhere in this report.

On the Company Rankings by Peer Group report, the VGRST helps rank order companies by one of these variables of alphabetically as shown in the figure below.

Each company is shown first within their peer group (employment range) and then in alpha order or the variable (highest to lowest) selected by the operator.

Looking first at the DQI in the right hand column (highlighted), the operator can quickly see if company specific findings are relevant.

Company	Value	Growth	Risk	Satisfaction	Tech	DQI
Peer Group 501 To 1,200 Employees						
TC Tech, LLC	79	72	26	80	0	93
Peer Group 7 To 20 Employees						
Southern Metal Fabrications, Inc.	63	52	47	61	26	100
Companies with Incomplete Interviews						
Aqua B						

251 Companies analyzed

Distribution of Companies by Range				
	Low	Medium	High	Very High
Value	5.98%	68.53%	24.70%	0.80%
Growth Potential	32.67%	59.76%	6.77%	0.80%
Risk	31.47%	65.74%	2.79%	0.00%
Satisfaction	4.78%	28.29%	60.96%	5.98%
Technology Adoption	68.92%	17.13%	13.94%	0.00%

The summary table on the bottom of the Company Rankings by Peer Group report shows the *Distribution of Companies by Range*. This summary depicts the vitality of the community's economic base or portfolio. The legend show how individual rankings fit in the portfolio and thereby contribute or reduce economic health: higher quality and lower risk are best.

Key	
	Low = below 40
	Medium = 40-60
	High = 60=80
	Very High = above 80

In the Distribution table example above, there are few companies (0.8%) in the very high category for value and growth potential. This is not uncommon. The Synchronist assessment is rigorous. Generally fewer than 5% of the companies in the US can qualify for these exclusive distinctions based on findings in the North American data study.

Risk on the other hand is the reverse. The risk number should be as low as possible. When a company breaks the 40 barrier, they are a company to watch.

Reading VGRS

Caution must be exercised when analyzing community norms for VGRS. These norms can be influenced by:

1) An extremely strong base of growth companies
2) A non-representative group selected for interview
3) A small non-representative survey sample
4) An abnormal economic period
5) Incomplete interviews

Consequently, the norms calculated may not reflect the circumstance of the entire economic base of the community.

VGRS Regional Analysis

The VGRS Report Summary on the report "Company Rankings by Peer Group" and on the "Company Summary" report also uses a distribution scale of Very High, High, Normal, and Low as the default reference ranges. These range markers are arbitrary points of reference. In practice, norms (the transition points) for Value, Growth, Risk, and Satisfaction "emerge" within each industry or community as more companies are interviewed. A resource based economy will show a different profile (VGRS combination) than a technology center or a community dominated by branch facilities.

Looking at the highs and lows from National Data provides an opportunity to look at the data's bell curve distribution. Blane, Canada Ltd. uses the break points (25%, 50%, and 25%) for VGRS analysis. The 25-50-25 analysis defines discrete portfolio segments which can be described as a leadership group, the solid majority, and the trailing minority. A more aggressive approach would be to expand the size of the leadership group by using break points of 33% 34%, and 33%.

The Range Analysis in Table 1 shows the 2012 National Data Norms as established by the 2010-2012 data. The high and low for each of the VGRS variables set the outer limits. The bell curve distribution identifies the norm or benchmark signaling the transition point from high, mid-range, and low.

For example, Value reaches a high of 89 and a low of 11, a range of 78 points. The median stands at 49. Using 25 percent to define the top quadrants of the range defines the highest Value companies. The National High Value Norm is, therefore, any company with a value greater than 56.

North American Data Norms 2012				**Table 1**	
	High	**Top 25%**	**Median**	**Bottom 25%**	**Low**
Value	89	>56	49	<40	11
Growth	100	>74	59	<44	9
Risk	75	>52	45	<39	17
Satisfaction	100	>65	56	<46	12

*Low Risk numbers are the best. For all others, higher numbers are better.

Source: Synchronist Users' 2007 North American Data Study, 9428 companies analyzed

The lows in Table 1 are not representative of individual primary sector companies with complete interviews. The low range markers in the range analysis (11 and 9) suggest these records are incomplete, non primary sector businesses like retail, service, or not-for-profit interviews. These incomplete records will bring the break points down and exaggerate the low end of the scale. A quick look at the DQI (data quality index) will confirm an incomplete interview.

Data Quality Index

In 2004 National Data Study it became apparent that "data quality" as noted above was a significant invisible factor in determining VGRS scores. Incomplete interviews reduce the accuracy of the VGRS analysis. To make this critical element visible, Synchronist System now has an integrated Data Quality Index (DQI).

Failure to ask questions is the only way an interviewer can influence the outcome in the VGRS calculation. Therefore, the DQI rates the quality of the interviewer's performance and its impact on the information underneath the VGRS values. The DQI counts the number of completed interview questions (yes/no and multiple choice) and provides a DQI score for every executive interview entered in the system. This calculation is shown on the Company Summary and Company Rankings by Peer Group reports to give the individual reviewing the VGRS number a benchmark.

DQI is counting the number of unanswered questions and giving the reviewer that additional information to help distinguish between good and poor interviews that can reduce the validity of the VGRS number. For example, two companies with a growth rating of 64 may not have the same growth potential. If two companies of similar size have the same growth value, but one has a moderate DQI (below 85) and the other a high DQI (above 85), it is likely the first (low DQI) is underestimating the growth potential of this company. A more complete interview could have increased the company's growth ranking.

The DQI number does not equate exactly to the number of questions not answered. A DQI of 85 does not mean that 15 questions were not asked or not answered by the executive. Beyond the raw question count, two other factors are evaluated by the DQI. First, not all questions are equally important. Therefore, DQI includes a ranking structure to evaluate each question's impact on good data quality. Second, DQI takes into consideration the alternative answers of DNA/K (does not apply/does not know) and Dcl (declined to answer). Therefore, for every question there are three distinct outcomes: NA – not asked or no answer recorded, DNA/K – asked but unable to answer as well as Dcl – asked and declined to answer.

Most of the Synchronist preformatted reports only refer to the DQI number. On the Company Summary Report, the DQI provides two important pieces of information, the DQI number and the judgment. The judgment provides three levels, each color coded for easy interpretation.

- 85 and Above, Green, Good
- 70 – 84, Blue, Adequate
- 69 – 51, Red, Poor
- 50 and below, Maroon, Incomplete

Essentially, any company with a DQI below 75 is pretty much worthless for VGRST accuracy. There are just too many unanswered questions to make a reasonable determination of VGRST.

Custom Interviews

For a variety of reasons, organizations will choose to eliminate some of the Synchronist questions from their interview. This is fine. However, since DQI and VGRS are both linked to the full array of questions, this will reduce DQI and change the VGRS calculations for the companies interviewed. This choice does not invalidate the VGRS findings. It does however change the scale within the community. For example, if the same 25 questions are asked consistently, a DQI will be established for those questions. Let's say the DQI for the 25 questions selected is 86. Other interviews should come in at a DQI of 86 as well if interviewers are being consistent with the questions asked. VGRS will also be scaled to the 25 questions. Therefore, users will be able to compare companies interviewed across their new "custom" scale. These "custom" VGRS numbers will always be below the National KPI. Consequently, they cannot be compared to the National KPI described elsewhere in this paper.

Open-Ended Questions and DQI

Data Quality Index is not impacted by open-ended questions. The VGRST analytical function uses the Yes/No Multiple choice responses to determine a value for each variable. Open-ended questions support and provide a context for understanding the Yes/No or Multiple choice response they follow. Therefore, having a response to an open-ended question is not a relevant to data quality for calculating the VGRST.

The analysis of open-ended questions is based on frequency of response by those answering the question. Consequently, DQI is not essential for tracking the response rates for open-ended questions either.

DQI and General Analysis

The Data Quality Index applies only to the VGRST analysis. Every yes/no and multiple choice question impacts the calculation of VGRST values. Therefore, as the number of questions decreases, less is known about the VGRST value influenced by that question and the VGRST number is lower.

If on the other hand, only 64 individuals answer question 8, there is no impact on the analysis. The Synchronist System by default calculates the response on the actual number of individuals responding to the question, not the number of interviews conducted. In other words, if there were 64 yes responses to a yes/no question with 100 total respondents; the fact that 125 executives were interviewed is irrelevant. The Synchronist report would show 64% of the respondents indicated yes to the question.

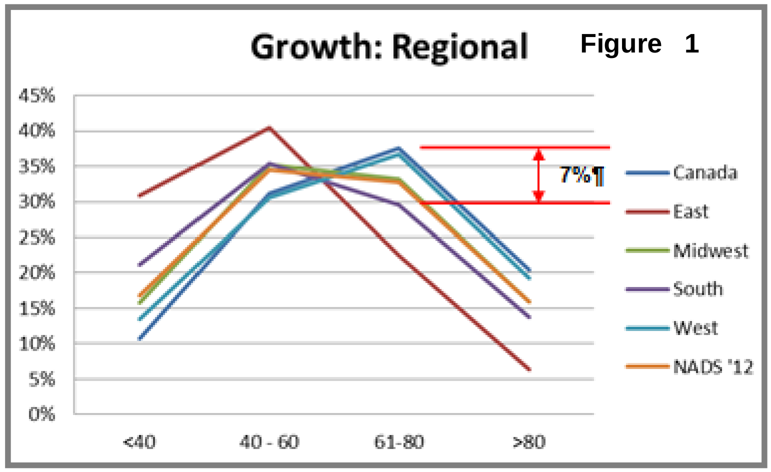
VGRS Regional Analysis

The idea of different norms for individual regions or communities is seen in the regional Key Performance Indicators (KPI) benchmarks for the National Data Norm shown by region. Each region has a different distribution across the four growth ranges. Looking at the 80+ range makes the differences clear. Canada and the West region have a competitive advantage in the growth department. The South region is slightly below the North American average, and the East continues to be an outlier.

VGRS Regional Analysis	**Table 2**			
Growth	<40	40 - 60	61-80	>80
Canada	10.68%	31.23%	37.54%	20.46%
East	30.84%	40.42%	22.46%	6.29%
Midwest	15.76%	35.17%	33.17%	15.87%
South	21.17%	35.40%	29.61%	13.74%
West	13.52%	30.60%	36.65%	19.22%

Source: Synchronist Users' 2012 North American Data Study, 17,000 companies analyzed.

Figure 1 shows the same information in a visual form along with each region's relative distance from the national Key Performance Indicators. Groups of individual communities could be shown in a similar manner. As the figure shows, the VGRS distribution for individuals can appear quite different. As expected, different communities display different characteristics reflective of the companies in the economic base selected for interview. This is an important point. <u>The VGRS distribution is representative of the community's economic base to the extent the companies selected for interviews are representative.</u> A few examples of criteria Synchronist Users use to identity interview candidates are:



- Alternating large and small employers on alternating years
- Largest employers
- Employers in specific cluster industries
- Employers perceived to be most valuable
- Random sample of employers

Each of these selection criteria will have a different impact on the VGRS distribution for the community. Over time, with enough interviews, the true VGRS will become apparent. This can be seen most clearly by charting VGRS numbers over several years on a single graph. Tools to help with this charting are available on the Synchronist System Users' Resource Site.

Caution must be exercised when analyzing community norms. The norms will be influenced by the percentage of local companies interviewed, as well as how companies were selected. Therefore, in these two cases and others, the local norms may not reflect the entire economic base of the community. These effects will disappear as the number of interviews increases and the pool of interviewed companies becomes more representative of the companies in the community.

Portfolio Management

VGRS gives development professionals information never before available. With this information, development professionals can group unrelated companies along the common intangible characteristics of value, growth, risk, satisfaction, and technology orientation (3.1 Version and higher). This allows development professional to push economic development resources – internal resources as well as the resources of other development partners – toward value and growth and away from risk. For example, with workforce, a community or region can select their growth companies (those with the highest growth numbers) and invite executives from those companies together to talk about their current and future workforce needs. This will produce a more focused discussion and draw out different recommendations than a mixture of high and low growth companies having very conflicting workforce needs. In this way, the development professional has asked the workforce group(s) to address the needs of those companies with the highest probability of being the future economic engines of the community. This is driving resources toward the greatest potential. This is portfolio management.

Additional Resources: Synchronist User's Resource Site

How-To Series # 3: Interpreting and Analyzing Reports
How-To Series # 14: Scatter Plot Analysis

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