decisiondynamics

This paper describes a project to develop a profile describing the personal characteristics needed for success in a sales position involving "big ticket" software sales. The project assumes that hiring profiles highly predictive of sales success can be developed from comprehensive analyses of differences in the behavior and personal characteristics of high sales producers vs. those of low producers. In addition to their use in selecting high performing sales representatives, the profiles can be utilized to design training and coaching programs aimed at critical performance issues and as a targets for tailoring development plans for individual sales representatives.

BACKGROUND

Electronic Information Services[2] (EIS) was founded in the early 1960s as a vendor of time-sharing computer services. Most of the company's sales were generated by time-sharing contracts for users of EIS' very elaborate, integrated business information system.

The company thrived throughout the 1960s and early 1970s. However, beginning in the late 1970s and early 1980s, EIS entered a period of level, then falling sales. With computer hardware costs rapidly declining, many current and potential EIS customers could now afford to purchase their own computers and then develop or purchase software to suit their needs.

Alarmed by declining sales and shrinking profits, EIS repackaged its large information system as a licensed software product and launched a new marketing campaign.

SALES STRATEGY

The marketing of a licensed software product became the focal point of a major shift in business strategy that had many important consequences for EIS' marketing and sales strategy, some of which the company had not anticipated.

Sales representatives now were responsible for selling both software and time-sharing services. However, EIS sales reps soon found that prospective software customers differed markedly from prospective time-sharing customers. And, they found, the length and nature of the sales cycle for the software package was dramatically different from the time-sharing services sales cycle.

Software customers were larger and more sophisticated about information systems. The software was a "big ticket" item, costing in excess of $500,000, in contrast to the average $7,000 per month price of the time-sharing service for the same package. Because of the substantial price tag, many of a prospective customer's senior executives, and often the CEO, were involved in the purchase decision. In contrast, service contracts often were sold without speaking to more than one or two of a company's managers, sometimes after only a couple of calls on a company. Now, sales reps could expect to spend an average of nine months orchestrating a very complex sales cycle to close a software deal.

SALES FORCE TURNOVER

Although EIS management did not expect to see skyrocketing sales of the software overnight, they were not prepared for the dismal success they encountered. Few sales reps were producing software sales, despite the strategic emphasis the company had placed on

software sales and the introduction of an attractive new sales incentive plan, and extensive sales and product familiarization training programs.

Even sales reps who had been most successful in the past were struggling. In one case, a sales rep who consistently had been among the company's top producers for years failed to sell a single software package during the two years following the introduction of the software product.

Many sales reps began to jump ship. Others were asked to leave. In one year, turnover exceeded 100 percent.

Meanwhile, service contract sales continued to decline. More and more old customers returned their terminals to EIS after plugging in brand new, mini and micro computers. EIS' software could only run on a mainframe computer, so few old service customers converted to EIS software.

NEED FOR TARGETED SALES REP PROFILE

For several years, EIS' sales rep hiring procedure had relied on sales rep candidate evaluations conducted by a firm specializing in sales representative assessments. The assessments were based on lengthy, structured telephone interviews with sales rep candidates. The assessment firm used a "generic" sales rep profile which it claimed had been validated as a predictor of success in all types of sales. However, In view of the company's sales difficulties, EIS management began to question the utility of their current sales rep candidate evaluations.

When asked to assist EIS in formulating a new sales rep selection strategy, we pointed out that even apparently minor differences between two jobs can result in important differences in the behavior required for success in each job. These differences, in turn, lead to differences in personal characteristics, styles, capabilities and work motives of people who are best suited for the jobs.

Sales jobs are virtually universal in requiring sales representatives to influence other people to buy a service or product. But, they differ widely in terms of factors such as the number of people who must be influenced, the necessity of motivating purchase intent, the need to actively prospect for qualified customers (versus "waiting on" customers), the length of the sales cycle, and the complexity of the product or the service itself. Differences in any of these factors easily could mean differences in characteristics needed for sales success.

Our comments made sense to EIS management. Several executives admitted that they had been puzzled by the fact that a number of formerly successful sales reps, who had left EIS to take sales jobs with other companies, were reported to be enjoying success once more. And, on reflection, there had been other reps who had fared poorly at EIS after generating impressive sales records with other companies.

EIS managers acknowledged that the product was both complex and expensive. Could the problem lie with the product instead of the sales rep? Perhaps some of the sales problem did result from characteristics of the product, they said, but the fact was that a small number of sales reps were doing very well selling the software package. The product could be sold.

SALES REP PROFILE DEVELOPMENT STRATEGY

Why was it that a small number of EIS sales reps were enjoying a lot of success when a much larger number (including some former stars) were finding success so elusive? That became the essential question that EIS wanted us to help them answer.

To answer the question we proposed the following strategy:

- Conduct a thorough job analysis of the EIS sales rep position, focussing on activities and behavior necessary to successfully sell the software product.
- Use results of the job analysis to develop an preliminary job profile specifying the characteristics of the ideal EIS software sales rep.
- Empirically validate the job profile with data on sales reps' sales records and data produced from an assessment of current sales reps using an assessment battery based on the estimated job profile.
- Refine or modify the preliminary sales rep job profile as necessary and implement a targeted selection program based on the validated profile.

JOB ANALYSIS

Headquarters Interviews

Our project plan called first of all for interviews with managers and other personnel at EIS headquarters. These Interviews were intended to give us insights into the nature of the EIS software product, the company's marketing strategy and customer base and the structure of the sales organization. Interviews were conducted with the President, the Vice President of Marketing and Sales, Directors of Marketing and Marketing Research, the Manager of Product Development, the Director of Human Resources, and sales rep recruitment specialists.

The headquarters interviews gave us insights into several important challenges facing sales reps. The product had many "bells and whistles," only some of which were needed by any one customer. The EIS package was not compatible with most other software packages. The software was written In EIS' own arcane programming language, making it difficult for users to modify the program to fit any unusual needs they might have.

On the positive side, EIS software Included more features than most other competing software products. Virtually any application a user might desire was included In the package. Consequently, smaller companies could count on being able to use the package as they grew and developed new Information processing needs. In addition, EIS had a highly competent user support organization to handle special requests and problems. And, the package ran on the most widely used mainframe computers in the industry.

Field interviews

We interviewed a dozen sales reps (out of a total population that varied between 36 and 40) and their sales managers across the U.S. The reps were selected to include all regions and all of the top producers, as well as a number of low performers.

Interviews with sales reps lasted approximately 3 hours. The Interview format was designed to produce detailed Information about sales cycle activities based on reps' actual sales efforts, successful and unsuccessful. Sales reps were asked to describe their activities and intentions, and the events that took place, at each step of the sales cycle for several sales efforts. Although, our interview questions were designed to prompt open-ended responses, we worked from a predetermined minimum schedule of questions. Most interviews took us far beyond our minimum schedule.

In conducting the interviews, we took particular note of behaviors and activities that distinguished successful from unsuccessful efforts, and which appeared to differentiate the sales strategies of the successful reps from those of the less successful reps.

Behavior Observation Scaling

Our job profiling method for this project was designed to make use of a modified form 0f the Behavior Observation Scaling (BOS) job analysis technique.[3] This method uses descriptions of actual incidents or events to identify critical behaviors needed for success. Behaviors were grouped into major categories, and then personal characteristics, styles and motives supporting the behavior in each category are identified.

For example, many of the EIS sales reps' behaviors, described during our interviews, involved attempts to establish new relationships with people. Obviously, they were very interested in establishing relationships wlth new prospects. However, many reps also Invested a lot of energy in building relationships with other people too, such as EIS personnel who could support them during sales efforts, and independent computer consultants who advise companies interested In developing or expanding their own information systems capabilities. Consequently, we designated "Initiating Relationships" as a major behavior category for the job.

Having identified Initiating Relationships as an important behavior category, our next step was to Identify personal qualities that would support the behaviors in the category. For instance, we believed that social extraversion or "outgoingness," and self confidence would be important personal characteristics needed to support establishing new relationships.

Once key personal qualities are Identified, appropriate techniques can be selected for assessing these qualities. For example, a number of assessment inventories, such as Cattell's *Sixteen Personality Factor Questionnaire* (16 PF), and Schutz's *FIRO-B*, contain scales that could be utilized to assess social extraversion.

We repeated this process for each of the following major behavior categories that we identified through our job analysis:

1.   Identifying Prospects;

2.   Initiating Relationships;

3.   Maintaining Relationships;

4.   Qualifying Prospects;

5.   Orchestrating the Sales Process;

6.   Presenting a Business Image;

7.   Persuading and Negotiating.

Many sales positions could be broken down into these or similar categories. However, in reviewing our results, we were impressed with the special importance and complexity of several categories for the EIS sales rep position. One of these was Qualifying Prospects.

Qualifying prospects is important in many sales situations, as most sales people learn early in their careers. A sales rep can err by over-qualifying (rejecting good prospects) or by under-qualifying (wasting time pursuing unlikely prospects).

With the new, lengthier, sales cycle, qualifying prospects became absolutely critical for EIS sales reps. With the software sales cycle running on the average 8 or 9 months, failing to eliminate a poor prospect could cost a sales rep a tremendous amount of time - in fact, a sizable amount of the rep's total available time for a year. In reviewing our interview results, we found that many EIS sales reps were making what appeared to be qualifying errors. In particular, they tended to *under*-qualify their prospects. They all knew that this could mean disaster for them, but many were finding the qualifying process very difficult to handle.

For the EIS sales rep the job of qualifying prospects was made complex by several factors. Because of the large price tag of the software package, many prospective customers set up committees to oversee the purchase decision. The committee structures often made it difficult to determine who would have most influence on the decision to buy or not to buy, and to find out what issues had to be addressed and what criteria needed to be satisfied.

In some cases, sales reps found to their dismay, after months of effort, that they merely had been used as "window dressing" by a committee. Many companies' policies called for an evaluation of products from multiple vendors. However, one or more key people sometimes had strong preferences for a competing software package and had already made the decision to buy from another vendor before the EIS sales rep appeared on the scene. Officially, however, they were "just shopping," and they hid their decision from their peers and, of course, from the EIS sales rep.

In other cases, prospects were genuinely interested In the EIS package, but a parent corporate preference or policy ultimately prevented a successful sale, or the EIS package did not fit some obscure technical requirement, or the prospect really did not have the budget capability to buy the software.

Successful sales reps had to peer through this murk, continuously, to read the subtle cues and the "handwriting on the wall" forecasting the ultimate outcome of a sales effort with a particular prospect. Moreover, not only did they have to be able to read the handwriting on the wall, they had to be willing to read it. This is where many reps experienced problems. They could see the "bad handwriting" but they didn't want to read it. Instead, they clung blindly to false hopes, without realizing they were doing so, until it was too late.

Clearly, the behavior needed to qualify effectively required some special characteristics.

In our estimation, most successful reps needed to enjoy sifting through large amounts of information. They needed to have strong aptitudes for inferential logic (for seeing patterns) and deductive logic (for drawing objective conclusions from facts). They also needed to be socially perceptive (for reading people), and objective and emotionally secure so as to be willing and able to reach objective conclusions about people and social situations without the interference of "wishful thinking."

ESTIMATED JOB PROFILE

Once we had identified behaviors and personal characteristics needed for each of the major categories, we put together a summary of the job profile that had emerged from our job analysis. The summary is shown in Table 1.

The profile is broken down into three categories: Intellectual, Interpersonal, and Motivational. For professional or managerial positions, most job activities involve thinking and deciding, dealing with people, and directing one's energy toward specific kinds of performance outcomes. Profiling jobs In terms of intellectual, interpersonal, and motivational characteristics, therefore, gives a well-rounded view of the ideal person for the job.

As Table 1 shows, the picture of the ideal EIS sales representative that emerged from the Interviews and job profiling is not a picture of the average person walking down the street. Intellectually, the rep needs to be quite complex (to handle the complex product and a very complex sales cycle). We saw the ideal rep as someone who thinks things through carefully and then develops a focused plan-of-action specifying routes to specific short-term and long-term objectives. We also believed, however, that it was very important for the rep to be sufficiently adaptable to deviate from, or modify, the plan when unforeseen circumstances arose.

Table 1
Estimated Sales Success Profile

Intellectual Characteristics	Related Assessment Instruments
• Analytic, focused decision-maker	*Styleview I Decision Style Exercise*
• Able to adapt plans to changing circumstances	*Styleview I and II Decision Style Instruments*
• Pattern recognition aptitude	*Employee Aptitude Survey*
• Deductive logic aptitude	*Watson-Glaser Critical Thinking Appraisal*

Interpersonal Characteristics	Related Assessment Instruments
• Complex in people perception and influence	*Styleview II Decision Style Instrument*
• Control-oriented	*FIRO-B*
• Sociable – outgoing	*Cattell Sixteen PF*
• Objective – "Thick-skinned"	*Guildford-Zimmerman Temperament Survey*

Motivational Characteristics	Related Assessment Instruments
• Achievement-oriented	*Achievement Inventory*
• Personal growth-oriented	*Guilford Zimmerman Temperament Survey*
• Positive emotional style	*Emotional Reactions Inventory*

According to the profile the Ideal rep should have higher than average mental aptitudes for pattern recognition and deductive logic. These aptitudes would assure that the rep's decisions and plans were based on real patterns and facts, as opposed to misconceptions or wishful thinking.

Interpersonally, our profile showed the ideal EIS sales rep as socially complex in terms both of reading people and in techniques used for influencing others' behavior. Inasmuch as the rep had to shoulder the responsibility of orchestrating a complex sales process involving numerous prospect personnel (often a committee) and EIS support personnel, all without formal authority over anyone, we believed the rep should be comfortable controlling other people (again, presuming that the rep had the requisite social complexity to exercise control). Without a control orientation, the sales process could easily degenerate into chaos or inaction.

The profile showed the ideal rep as outgoing and gregarious, but also as a person with a "thick hide." Without the hide, the rep could feel the sting of rejection and might lose confidence when prospects turned their backs on him or her in favor of another sales rep's product from some other company.

Motivationally, the profile portrayed the ideal rep as a highly energetic, up-beat, and achievement-oriented Individual who saw current successes as merely rungs on a ladder leading to even greater future successes. We believed also that reps needed a strong per-

sonal growth orientation to keep abreast of technical and industry trends. During our Interviews, we had noted that the higher performing reps were avid consumers of the self-help literature, reading most anything that could give them new insights into ways to improve themselves and bring them new successes. Recognizing this, one EIS branch sales manager periodically presented his reps with sets of audio recordings on motivational and personal growth topics.

EMPIRICAL VALIDATION OF THE PROFILE

To convert our estimated job profile into an accurate hiring profile for the EIS sales rep position, our next step was to empirically validate the profile using sales reps' performance histories, and then to modify it as necessary. Based on our past experience, we were confident that the estimated profile would get us squarely into the right ball park, in close proximity to the true profile.

As Table 1 shows, for each of the personal qualities included in the profile, we had in mind corresponding assessment dimensions that could be measured with one or more assessment instruments. So, we put together an assessment battery to include measurements of the dimensions that we had identified. Then, during EIS's annual sales rally, we assessed the entire sales force, a total of 40 people. Next, we collected sales records for each sales rep. Then, we input all of the assessment data and sales records into our database and designed our statistical analyses to look into the relationships between profile dimensions and sales performance.

Because of the relatively lengthy sales cycle, and the possibility of there being a significant learning curve to climb before a rep would be "up to speed," we limited our analyses to a sample composed only of reps with at least one year of sales experience at EIS. Our aim was to home in on the profile of the reps with the clearest demonstrated records of sales success.

The criterion that we wanted to be able to predict with the assessment results was average sales (in dollars) per month while subject to a sales quota. So, our target criterion became average sales per month for each rep for each month on the sales force during the preceding two year period.

Getting back to that essential question mentioned earlier, we wanted to be able to explain why some reps outperformed their peers by such a wide margin. How would the assessment profiles of the high producers differ from those of the low producers? How closely would their profiles resemble our estimated EIS sales rep profile?

The results of our analyses (using correlations, scatterplots, and multiple regressions) produced remarkably clear-cut answers to these questions. Although, the proprietary interests of EIS preclude us from disclosing the full details of the validated dimensions, Table 2 presents a summary of the profile. The table also shows summary validity statistics for each of the profile's three parts and for the total profile.

TABLE 2
Validated Sales Rep Job Profile

INTELLECTUAL CHARACTERISTICS
- High information, creative decision style (Integrative style}
- High information, focussed "backup· decision style (Hierarchic style)
- Pattern recognition aptitude
- Deductive logic aptitude

Summary intellectual index validity coefficient: r = 0.74

INTERPERSONAL CHARACTERISTICS
- Moderate low influence complexity
- Moderate high sociability
- Low need tor affection
- High assertiveness ("outspoken")

Summary Interpersonal index validity coefficient: r = 0.86

MOTIVATIONAL CHARACTERISTICS
- Low need for respect
- Low fear
- Low repression
- Mod -low need for popularity
- Mod high financial motivation
- High occupational achievement motivation

Summary Motivational Index Validity Coefficient: r = 0.86

SUMMARY TOTAL PROFILE VALIDITY COEFFICIENT: r = 0.94

Intellectual Characteristics

In the Intellectual category, our correlational and regression analyses identified four profile characteristics that were most strongly associated with high sales. When combined into one summary index, these four characteristics correlated very highly (simple r = 0.78) with average sales per month.

Another way of saying this is that the four intellectual characteristics shown in Table 2 to-gether accounted for about 61 percent (r-square = 0.61) of the variance In sales performance.

These were exciting results. Despite the fact that we were working with a small sample (we will say more about the small sample shortly), we viewed these results as strong evidence for the validity of the estimated profile.

The statistical results only differed from our expectations in a minor way. Originally, we saw the Ideal sales rep as a focused and analytic planner and decision maker who also was able to adapt creatively to changing circumstances. But, our statistical results said that the ideal rep was, first of all, an analytic and creative decision maker, who also was able to de-velop focused and detailed plans. This was a subtle, yet important difference --but still In the right ballpark.

To measure these "decision styles," we used the Styleview[tm] Decision Style[4] Exercise. Our results showed that the Integrative decision style" (one of four basic decision styles) was

most highly correlated with sales success (r = 0.50). The Integrative decision style is a high information use style that typically generates many alternate courses of action for dealing with a situation. It is a multi-focused style. The Hierarchic style is also a high information use style, but it typically leads a person to home in on one clear-cut, "best" course of action for dealing with a situation. In contrast to the Integrative style, the Hierarchic decision style is focused.

On the basis of our estimated profile, we felt confident that both Hierarchic and Integrative styles would be associated with sales success. But, we expected to find the Hierarchic style to be the better predictor of high performance. It turned out to be the other way around. Both styles were Important as we had expected, but the ideal EIS sales rep typically used the Integrative style, but was able to shift to a Hierarchic, secondary style. So, we were mostly right, especially in view of the fact that the less analytic, action-oriented styles were either unrelated to sales success (the Flexible style) or were strongly associated negatively (the Decisive style) with sales success.

Clearly, the ideal EIS sales rep did not fit a "Willy Loman" (the main character in Death of a Salesman) image of a fast-talking, fast-acting, in-quick-and-out-quick, joke-a-minute character. Instead, we were seeing the picture of an analytic, long-term thinker with better than average pattern recognition and logic capabilities - a complex, and somewhat "head-heavy" type of person.

Interpersonal Characteristics

As Table 2 shows, the results were even clearer for the Interpersonal predictive index that we developed on the basis of the statistical analyses. Combining the four scales that our regression analyses showed to be most highly correlated with sales performance produced a summary Interpersonal index that was very strongly associated with sales success (r = 0.86). This index alone was capable of accounting for a full 73 percent (r-squared = 0.73) of the variance In sales among the sales reps in our sample.

Here, we found a couple of surprises. We had expected the ideal rep to be highly complex socially in terms of reading and influencing people. And, we expected the highest producing reps to be very sociable and outgoing. However, the picture we saw when we looked at the results of our statistical analyses was somewhat different.

The results said that the highest performing sales reps were sociable, up to a point. Very high sociability was associated with fewer sales, as was low sociability. Moderation seemed to be the watchword here. In addition, we found that lower needs for affection were better than high needs for affection. Apparently, the ideal rep did not rely on reinforcement from other people. (The highest performing sales rep in the company scored zero on our need for affection scale.)

Our results also showed the ideal rep to be somewhat below average on influence complexity and highly assertive in voicing his or her views. The picture we were seeing was of a relatively outspoken and independent individual who spoke his or her mind, without many subtle attempts at persuasion. Apparently, as several subsequent interviews suggested, prospects were not impressed by warmth and friendship, or "salesmanship." What they wanted were the straight facts. And, that's just what the high performers were giving them.

Motivational Characteristics

The picture of an independent, self-sufficient character continued as we looked at the results of our analyses in the motivational category. The picture here was one of a person looking for long-term achievements (not quick results) with moderately high financial

motives. The higher performers showed little fear, little evidence of repression (they made little attempt to conceal their emotions). They were relatively uninterested in being popular, and cared little about getting respect from other people.

As Table 2 shows, combining the six motivation and emotion scales (after transforming them, of course, to adjust for curvilinear relationships with performance) produced a summary Motivation index that was associated with sales success ($r = 0.86$) as strongly as the Interpersonal index and somewhat stronger than the Intellectual index.

Overall Profile

Combining Intellectual, Interpersonal, and Motivational Indices produced one summary Total Profile index that was extremely highly correlated with sales success ($r = 0.94$), accounting for about almost 90 percent (r-squared $=0.89$) of the variance In EIS sales reps' performance. These truly were powerful results. They virtually eliminated any uncertainty about the personal qualities needed for success as an EIS sales rep.

The results presented a portrait of a person who is highly analytic, perceptive and logical. The person is relatively sociable, in terms of involving herself or himself with other people, but has little need for social recognition or rewards. The person is self-sufficient and self-confident, outspoken and assertive. Long-term achievements and career success are more important to the person than short-term achievements.
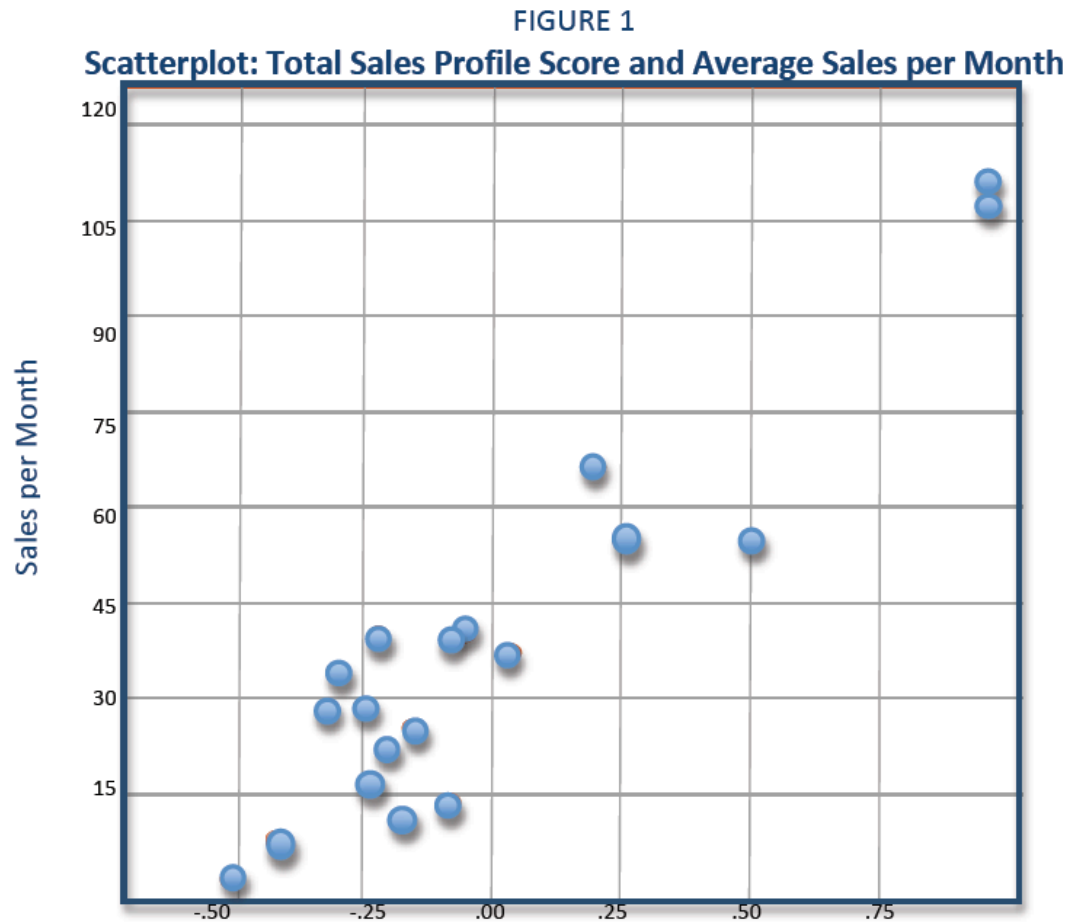
But, could this picture be believed? Statistics can mislead - especially when they are based on a small sample of 18 people. For example, It is possible to get some Impressive looking statistics linking two indices (*e.g.*, a profile index and sales performance) when no real relationship exists between them simply because a few people happen to have extreme scores on the indices. With a small sample, these "statistical outliers" could drive correlation coefficients all over the place even if the majority of the people in the sample had scores that were random.

This is where the eyeball can and should play an important role. For the EIS project, we cast our eyes on the scatterplots that graphically showed the relationships between assessment scores and average sales per month. In this way, we could see whether our statistical results were merely mirages.

We could see visually whether the correlation coefficients resulted from a couple of oddball outliers.

Figure 1 presents the scatterplot showing the relationship between EIS sales reps' scores on the Total Profile index (on the horizontal axis) and average sales per month (on the-vertical axis). Each point in the graph represents sales performance of a particular sales representative.

The first thing that catches the eye is that there is no one with high scores on the profile index and low sales performance (the lower right-hand corner), and there is no one who has low scores on the Index but high sales per month (the upper left hand corner).

FIGURE 1

Scatterplot: Total Sales Profile Score and Average Sales per Month

Instead, the reps line up nicely on a diagonal from the lower left corner (low profile index scores and low sales) to the upper right corner (high profile index scores and high sales).

There are two outliers in the right hand corner. These are the company's two super stars. But, they are right where they should be on the diagonal. In fact, even if these two reps were removed from the sample, there still would be a clear relationship between index scores and sales performance on a lower left to upper right diagonal, straight through the low performing group on up to the middle level performers.

This, and other, plots gave us a lot of confidence in the validity of our findings. Further-more, the results made a good deal of conceptual sense, Inasmuch as they conformed rela-tively well (with a few noteworthy exceptions) to the expectations that we formed solely on the basis of the job analysis.

In short, we felt confident that we had a real profile of success for this group of sales reps selling EIS software during this particular period.

PREDICTIVE VALIDITY

But, would the profile hold up over time? Would it accurately predict success for the future? The opportunity to answer this question presented itself within a year. Inasmuch as the entire sales force had been assessed in the preceding January, we were able to collect sales performance records at the end of the year to see how well the profile had predicted sales success.

We knew that this would be a very tough test of the profile. For one thing, we had developed the profile based on sales records for a two-year period. Now, we would be looking at one year only. With a sales cycle of nine months, one year is a very short period for evaluating sales capability.

Ideally, a longer period would reveal success patterns more clearly. In addition, the year had been rough one for sales. By midyear, it had become clear that the entire software industry was in dire straits. In effect, the bottom had fallen out of the market. That should have been enough to test the mettle of any sales profile.

We again restricted our sample to sales reps who, by the end of the previous year, had at least one year on the EIS sales force. This gave us a sample of 26 reps. To evaluate the predictive accuracy of the profile there were several questions that we wanted to answer. What percentage of the reps who scored high on the profile index at the beginning of the year actually generated high sales by the end of the year? And, what percentage of the reps who had low scores on the profile actually ended the year with low sales?

Table 3 provides the answers to these questions. The top row of the table shows the number of reps whom we would have predicted to have high sales on the basis of their profiles (those scoring at or above the median profile index score) broken down into two groups: those who had average sales per month for the year at or above the median for the entire group, and those whose sales were below the average sales per month for the group. The bottom row shows the predicted low performers. They also are broken down into a high and low performing group on the basis of their actual sales.

Table 3
Predictive Accuracy of EIS Sales Success Profile

| | | **Actual Sales Performance** | |
		Low Producers	**High Producers**
Predicted Sales Performance on Basis of Sales Success Profile	**High**	3	**10**
	Low	**10**	3

In all, profile scores accurately predicted the sales performance of 20 of the 26 reps. In other words, the profile predicted sales performance with 77 percent accuracy. Statistically, these were impressive results (*Chi*-Square = 5.54, *p* < .05), validating the predictive accuracy of the profile.

CONCLUSION

This was good news for EIS management. Previously, they estimated that only about one in three sales reps they hired turned out to be successful. Now, the company had a clear picture of the qualities that they needed to be looking for in sales rep candidates. Our results not only gave EIS a clear picture of the behavior and personal qualities needed to successfully sell its software, they also shed light on why formerly successful reps were having difficulty making the transition from service to software sales. Because some sales reps were still selling services, we were able to take a quick look at the ideal services sales

profile, in contrast to the software sales profile. Briefly, successful services sales reps tended to be less analytic, more action-oriented, and highly gregarious individuals.

The two contrasting profiles enabled the company to identify training and development strategies that could be used to help their current reps bridge the gap between services and software sales. Consequently, in addition to implementing a targeted selection program based on the new profile, the company also established a developmental planning and coaching program for current sales reps. With profile-based feedback and a developmental planning system involving sales reps and their managers, sales managers no longer had to rely solely on "cheer-leading" and pressure to make more "cold calls" to stimulate sales. Now, they could offer their reps some very specific advice and guidance.

The two contrasting profiles cast real doubt on the notion that there exists a "generic sales profile" describing a super competent sales person who can sell anything, anytime, anywhere. At EIS, our results were useful in helping some of the formerly successful sales reps to realize that they had not suddenly become failures in life. They now could see that the job profile had changed and, with feedback, they could see how they could begin to adapt their behavior to meet the new challenges.

NOTES

1. The author wishes to express appreciation to Steve Winters and Ward Testerman for their assistance and creative contributions to the project described in this paper.

2. Electronic Information Systems is a fictitious name.

3. For more information about the BOS method, see: K.R. Brousseau, "Job – Person Dynamics and Career Development," in K. Rowland and J. Ferris, *Research in Personnel and Human Resources Management*, Vol. II, New York: JAI Press, 1984; or see M. D. Dunnette, "Aptitudes, Abilities, and Skills," in M. D. Dunnette (ed.), *Handbook of Industrial and Organizational Psychology*, Chicago: Rand McNally, 1976.

4. More information about the Styleview[tm] Decision Style model is available in M. Driver, K. Brousseau and P. Hunsaker. *The Dynamic Decision Maker*, Self Discovery Press, Thousand Oaks, California, 1998.