

# Personality and emotional intelligence as factors in sales performance



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## Abstract

In this study, salespersons in a telecommunications company were tested for emotional intelligence (EI), additional dimensions of work motivation and personality, and work performance. It was found that EI was related as expected to other variables, most noticeably to life/work balance (positively), to positive affective tone (positively), and to materialistic values and money obsession (negatively). EI was most clearly related to citizenship behavior and less to core task performance, as expected. Core task performance was strongly related to conscientiousness and positive affect, and to willingness to work and work interest. Job satisfaction had a weaker relationship to performance, in agreement with much earlier work. EI emerged as a dimension possible to measure and with expected properties.

Emotional intelligence (EI) is a concept which currently attracts much interest (Matthews, Zeidner, & Roberts, 2002). It is defined as the ability to identify and manage emotions (Mayer & Salovey, 1997), in oneself and others. Salovey, Mayer and colleagues were the first to devise operational procedures for the measurement of EI (Mayer, DiPaolo, & Salovey, 1990; P. Salovey & Mayer, 1989-1990). In their later work, they have demonstrated that EI is a facet of intelligence, with psychometric properties similar to those of traditional intelligence constructs (Mayer, Caruso, & Salovey, 1999; Mayer, Salovey, Caruso, & Sitarenios, 2001), and its value in accounting for various aspects of positive life adjustment (Engelberg & Sjöberg, 2004a, 2004b, 2005; Peter Salovey, Caruso, Mayer, Linley, & Joseph, 2004) and leadership (Caruso, Mayer, Salovey, Riggio, & Murphy, 2002).

EI has been implicated in the writings of several authors as an important factor in job performance (Boyatzis, Goleman, & Rhee, 2000; Goleman, 1995, 1998). This is allegedly true for jobs which have important social ingredients, and many or even most jobs do. However, rather few studies have been published so far where these notions have been tested on data from industrial applications. Most empirical work on emotional intelligence has tended to use small convenience samples of college students, and testing situations carrying no important outcomes for the participants in the study. The present work builds on our experience of EI testing in a high-stakes situation (Sjöberg, 2001a, 2001b, 2005a; Sjöberg & Engelberg, 2005).

It is commonly noted that salespeople vary strongly in performance. There could be many reasons for this fact, including personality, aptitudes and training (Farrell & Hakstian, 2001). The performance of salespeople is related to their ability to manage various kinds of social problems, and to deal with the motivational and emotional problems arising because of negative feedback and failures (Badovick, Hadaway, & Kaminski, 1992; Brown, Cron, & Slocum, 1997). A person high in EI should be resilient and able to handle the emotionally threatening outcomes of failure, and failure is frequent in the life of the salesperson. We therefore saw it as interesting to test the notions of emotional intelligence with sales personnel.

Sales personnel work in a job where social and possibly emotional skills are of importance (Manna & Smith, 2004). Within an EI framework, social skills involve the ability to interpret emotional expressions and to draw on emotion knowledge that will enable the individual to adapt to social contexts of different kinds (Engelberg & Sjöberg, 2005). Research, however, suggests that social skills also involve the ability to enter the bidirectional exchange of emotional information with another person. This aspect draws on the ability to respond to other people's emotional cues to affect their moods and emotions and has been studied within research on the emotional contagion theory (Hatfield, Cacioppo, & Rapson, 1994). When explored in a sales context, emotions via facial cues during a conversation were monitored in a study by Verbeke (1997). Results showed that sales performance was better among personnel with a high ability to transfer emotions, whereas performance was worse among salespersons with less of this ability, although they showed an equal sensitivity to the customer's emotions. In a similar vein, we found that susceptibility to mood contagion is a social skill grounded in EI-related abilities to perceive and process emotional cues from other people when present in a concurrent situation (Engelberg & Sjöberg, 2004a)

Emotional intelligence is currently measured in two different ways: as performance and as self-report (Roberts & Schulze, 2005). The former approach was the first thrust when the concept was launched in the beginning of the 1990's (Mayer, DiPaolo, & Salovey, 1990; Salovey & Mayer, 1989-1990). However, it was soon to be overtaken in applications by self-report scales, such as the one devised by Bar-On (Bar-On, 1997, 2000).

Mayer and colleagues have continued their work on performance measures (Mayer, Perkins, Caruso, & Salovey, 2001; Mayer, Salovey, Caruso, & Sitarenios, 2001; Salovey et al., 2003). This is undoubtedly a promising approach. One important advantage is that such measures seem to be unaffected by impression management strategies (Sjöberg & Engelberg, 2005). They also provide new information beyond that given by the five factor model dimensions of personality. Only one of the latter dimensions, agreeableness, has been found to be related to performance measures of (Sjöberg & Engelberg, 2005), and that is expected and constitutes construct

validation. The self-report scales are, however, more convenient than the performance measures. It is much easier to devise reliable scoring keys for self-report scales than for performance measures, which are plagued by problems having to do with defining the Aright@ response alternative (Roberts & Matthews, 2001). We develop and use measures of both kinds in the present study, seeking to find out whether some degree of convergence can be documented.

The performance dimensions which we have found to be promising are the identification of emotions in photographs of facial expressions, and in social problem situations. We develop these measures which are inspired by the tasks devised by Salovey et al., but we use our own concrete operationalizations. If the performance approach has empirical substance, it should generalize to concrete instantiations other than those originally suggested and applied. The self-report dimensions which we use are connected to personality and attitude dimensions of potential importance for EI: alexithymia (Bagby, Parker, & Taylor, 1994a, 1994b), self-actualization (Jones & Crandall, 1986), impulse control (Sjöberg, 2005a), empathy (Mehrabian & Epstein, 1970), and Machiavellianism (Christie & Geis, 1970). The latter is perhaps less often mentioned in connection with EI, but it has been implicated in the writings of some authors (Sjöberg, 2005a). It seems reasonable that a cynical and manipulative attitude should be indicative of low EI, and Machiavellianism has been found to belong to a group of factors strongly related to EI in our previous work. In the case of sales performance, Machiavellianism may be a positive factor, however (Aziz, 2004), possibly depending on what kind of sales are studied.

The inclusion of a self-report scale of ability to resist failure (Kobasa, 1979; Luthar, Cicchetti, & Becker, 2000) is new to the present study and we hypothesize that it, too, is of central importance for EI.

Emotional intelligence has implications for a broad band of dimensions, not only performance. Testing these is an interesting task in itself, but it also contributes to the construct validation of the concept. We mention three aspects of particular interest in the present context: work/life balance (Carlson, Kacmar, & Williams, 2000; Netemeyer, Boles, & McMurrian, 1996), affective tone (Burke, Brief, & George, 1993) and materialistic values and money attitudes (Furnham, 1996; Furnham & Argyle, 1998). Previous work of ours has shown that people high in EI also have a better life balance, i.e. they experience less conflicting demands on their time between work and family and/or leisure. In addition, high EI people, while making more money than others, have been found in our research to be, at the same time, less concerned about money and materialistic values (Engelberg & Sjöberg, in press; Sjöberg, 2005a). This could be so because they experience less economic stress, but for the present study it is enough to note the relationship and to test it in a new context. In the present study we also test whether a positive affective tone is associated with high EI, which we expect it to be. High EI should have positive life consequences, and hence contribute to a positive feedback loop which involves positive mood and affect. Conversely, it has been argued that the proclivity to exhibit facial expressions of happiness, surprise and interest less frequently, as well the tendency to engage in less eye contact with interaction partners, are related to an increased risk for developing symptoms of affective disorders, such as depression (Segrin & Abrahamson, 1994) Affective tone is a general factor which permeates much of behavior (Watson & Pennebaker, 1989).

Other factors of course also enter the picture and can be expected to be of importance for understanding sales performance. Farrell and Hakstian have published an extensive meta-

analysis and found that personality was an important factor, even if aptitudes and skills were even more important (Farrell & Hakstian, 2001). Improved selection procedures were found to be economically quite profitable. The five factor model of personality has been extensively applied in industrial settings, and especially conscientiousness has been found to be important in accounting for performance (Salgado, 1997; Widiger & Trull, 1997). In addition, extraversion probably enters as a factor in the job performance of sales personnel (Barrick, Stewart, & Piotrowski, 2002; Warr, Bartram, & Martin, 2005). Creativity is often mentioned as an important factor in many types of job performance (Albert & Runco, 1999; Oldham & Cummings, 1996), sales being one. Risk factors, especially risk for feelings of disengagement from the job, are potentially important (Sjöberg, in press).

Much current work on personality and work performance is based on the five-factor model. Such models have met with some, but limited, success in accounting for performance (Barrick, Stewart, & Piotrowski, 2002).

Work motivation is of course a salient factor in all discussions of job performance. However, it is well known that job satisfaction has failed to account for performance (Iaffaldano & Muchinsky, 1985). In our unit, we have instead developed a measure of *willingness to work* (Björklund, 2001; Sjöberg & Lind, 1994) which has been more successful in accounting for performance. In addition, job interest has been found by us and others (Vinchur, Schippman, Switzer, & Roth, 1998) to be important. We apply both the concepts of willingness to work and job interest in our attempt to account for the performance of salespeople.

We decided to use Motowidlo's approach to the measurement of job performance<sup>1</sup> (Borman & Motowidlo, 1997; Motowidlo, Borman, & Schmit, 1997). It makes a distinction between core job performance and citizenship behavior, i.e. concern with the social aspects of the job environment. Both these dimensions were to be studied. The two Motowidlo dimensions correspond to 2 work goal dimensions postulated and measured by Barrick et al. (Barrick, Stewart, & Piotrowski, 2002), viz. communion striving and task accomplishment striving, while striving for status and power was not measured in our study.

Self-report measures of performance are of course biased (Dunning, Heath, & Suls, 2004). However, a major problem concerns the level of self-rated performance; people usually over-estimate their performance. This factor is not important in a study of individual differences such as the present one, where levels of variables are unimportant. Self-rated performance has some validity in spite of the tendency towards over-estimation (Sjöberg, 2005b).

Impression management is a problem in all self-report measurement of personality and we therefore included a scale measuring a social desirability response set (Crowne & Marlowe, 1960).

Summing up, the purpose of the study was to investigate the potential usefulness of emotional intelligence for understanding sales performance, to assess the construct validity of the concept, to assess its power in relation to certain other personality factors implicated in sales performance. We planned to do so with regard to both core job performance and citizenship behavior on the job.

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<sup>1</sup> Objective sales measures or supervisor ratings were not available

## Method

### Participants

There were 45 participants, 36 men and 9 women, all working for a large tele-communications company. Their median age was 36 years, range 25-56. The average level of education was rather high; 13 had a college degree. All except 2 had more than 2 years of sales experience, 33 had more than four years. They had been working for the company on the average (median) 3 years, in the branch for 6 years. Hence, the group was dominated by people with extensive sales experience. The test was commissioned by their employer and the results were used to take personnel decisions; a very large variation in sales performance being the ultimate concern of the employer.

### Test and criterion dimensions

The test session was organized according to the following scheme:

- Tests of creativity
- Personality dimensions 1
- Ten problem episodes to be assessed for emotions of the actors
- Personality dimensions 2, facets of emotional intelligence (self-report) and impression management
- Work motivation, balance work/life
- Management of failures
- Risk
- Attitude to money
- Work performance
- Background questions
- The assessment of emotions expressed in photographs

The creativity tests were of two kinds: divergent thinking (4 items) and self-report (two dimensions). The divergent thinking tasks were short (3 min each) and asked for the production of ways of using, e.g. a 3 decimeters long ruler, or the similarity between two seemingly unrelated concepts, such as an officer's hat and a rowing boat. They were scored for number of proposed solutions without regard to quality<sup>2</sup>. The self-report scales measures intellectual openness (George & Zhou, 2001; McCrae & Costa, 1997) and creative attitudes, i. e. stressing creativity as important and expressing a positive attitude to creative work, negative to routine work (Sjöberg & Lind, 1994). Reliabilities of the two self-report scales, and all other scales, are provided in Table 1, which also gives information about the number of items.

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<sup>2</sup> Scoring for quality as well did not give any substantial differences in the creativity measures.

Tabell 1. A summary of used dimensions, number of items and reliabilities (Cronbach=s alpha values)

<b>Name</b>	<b>Number of items</b>	<b>Reliability</b>
Social problem episodes	10 (plus 20 items per episode)	0.72
Facial expression	12 (plus 8 items per photograph)	0.82
Intellectual openness	15	0.81
Creative attitudes	20	0.80
Job satisfaction	6	0.65
Conscientiousness	20	0.88
Extraversion	21	0.89
Work interest	29	0.86
Alexithymia	20	0.79
Self actualization	17	0.73
Social desirability (impression management)	33	0.77
Machiavellianism	33	0.74
Empathy	33	0.65
Impulse control	12	0.80
Positive affect	36	0.78
Work motivation	17	0.88
Work/life balance	19	0.89
Ability to withstand failures	24	0.77
Risk	28	0.89
Attitude to money	21	0.79
Achievement. core job tasks	17	0.80
Achievement. citizenship behavior	18	0.86

The personality dimensions were assessed with self-report items, and they were

- conscientiousness
- extraversion
- affective tone

There is a need to explain the variable of affective tone. It was derived under the inspiration of Hogan's Dark side of personality concept (Hogan & Hogan, 1997). This is a new idea which seemed interesting since it is oriented towards finding people with potential problems in a number of dimensions. The present item set was developed with this notion in mind. However, data show clearly the items scale as a one-dimensional concept. People who express problems seem to be complaining about most aspects of life and society, to be cantankerous. We have all met such people. The extensive work on mood and bodily symptoms (Watson & Pennebaker, 1989) shows how seemingly disparate symptoms all seem to express the same underlying negativity. This is what we mean by affective tone.

The facets of emotional intelligence were

- self-actualization
- alexithymia
- impulse control
- empathy
- Machiavellianism
- ability to withstand failure

The broader implications of EI were tested against measures of

- work/life balance
- materialistic values, money obsession
- affective tone

Finally, measures of work motivation and interest were

- willingness to work
- work interest
- risk of disengagement

EI performance was measured by data on the assessment of problem episodes and facial expressions. The 10 episodes were described in short vignettes, and assessed on 10 emotion scales. The task was to rate to what extent each of the two actors had experienced emotional reactions, on 10 scales, giving a total of 20 ratings for each episode, 200 for the whole subtest. They were scored according to a consensual criterion; i. e. the most common response was scored as the correct one. A similar procedure was followed with photographs, each assessed for 8 dimensions, 12 photographs from the Lightfoot series (Engen, Levy, & Schlosberg, 1957). Hence, there were 96 responses to the photographs.

The participants were tested in two subgroups. The whole session took about 3 hours.

## Results

### Preliminaries

The 8 scales of EI were intercorrelated, see Table 2. All scales, except the one based on problem episodes, correlated as expected. A composite measure was calculated, deleting the episodes subtest. All scales were first standardized to equal standard deviations and means, and the Machiavellianism scale was reversed.

Table 2. Correlations among EI and related variables

	1	2	3	4	5	6	7	8
1. Alexithymia (reversed)	1.00	0.34*	0.46**	0.66**	-0.57**	0.48**	0.35*	-0.24
2. Empathy	0.34*	1.00	0.34*	0.46**	-0.36*	0.22	0.08	-0.25
3. Hardiness	0.46**	0.34*	1.00	0.56**	-0.37*	0.70**	0.21	0.08
4. Impulse control	0.66**	0.46**	0.56**	1.00	-0.40**	0.53**	0.19	-0.21
5. Machiavellianism	-0.57**	-0.36*	-0.37*	-0.40**	1.00	-0.47**	-0.23	0.30*
6. Self actualization	0.48**	0.22	0.70**	0.53**	-0.47**	1.00	0.23	-0.06
7. Facial expressions EI measure	0.35*	0.08	0.21	0.19	-0.23	0.23	1.00	0.08
8. Social problem episodes EI measure	-0.24	-0.25	0.08	-0.21	0.30*	-0.06	0.08	1.00

\*  $p < 0.05$ , \*\*  $p < 0.01$

The creativity tests were then intercorrelated, see Table 3. These tests were related as expected, and were combined into an over-all creativity score, after standardization.

Table 3. Correlations among measures of creativity

	1	2	3	4	5	6
1. Creative attitude	1.00	0.71**	0.49**	0.34*	0.38**	0.36*
2. Intellectual openness	0.71**	1.00	0.47**	0.34*	0.38*	0.40**
3. Divergent thinking 1	0.49**	0.47**	1.00	0.69**	0.49**	0.41**
4. Divergent thinking 2	0.34*	0.34*	0.69**	1.00	0.70**	0.62**
5. Divergent thinking 3	0.38**	0.38*	0.49**	0.70**	1.00	0.60**
6. Divergent thinking 4	0.36*	0.40**	0.41**	0.62**	0.60**	1.00

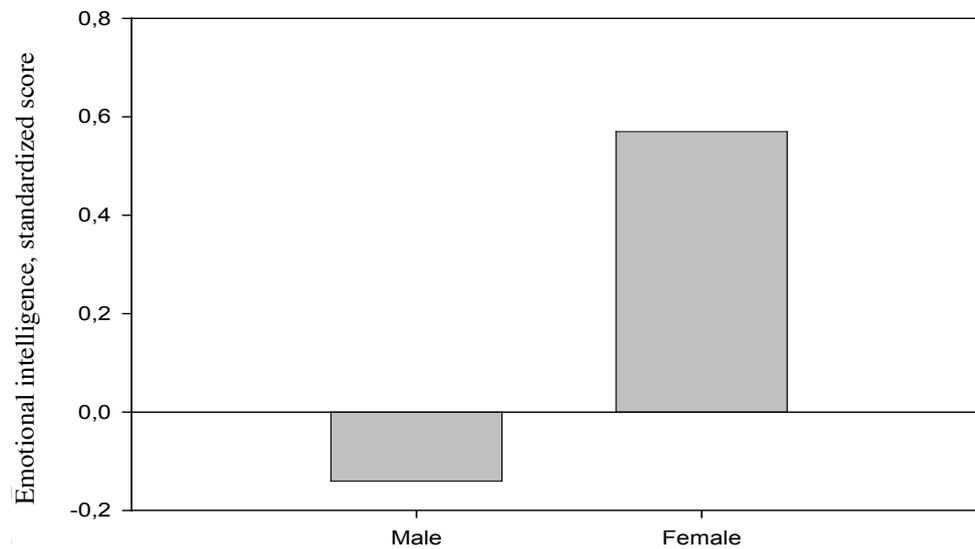
\*  $p < 0.05$ , \*\*  $p < 0.01$

### Relationships between EI and its broader implications

As hypothesized, EI correlated with work /life balance,  $r = 0.32$ ,  $p < 0.05$ , and materialistic values and money obsession,  $r = -0.52$ ,  $p < 0.01$ . There was also a strong correlation between EI and positive affect,  $r = 0.50$ ,  $p < 0.05$ .

It is important to check on gender differences in order to carry out further construct validation. As expected, the female group excelled over the male in terms of EI, and the difference was quite large, 0.71 standard deviation units ( $p < 0.05$ ). See Fig. 1. The same trend was found for the EI measure based on facial expressions, but weaker.

Figur 1. Gender difference in emotional intelligence



### Performance

The whole set of predictor variables were related to the two performance measures, see Table 4.

Table 4. Raw correlations between work criteria and measured variables of personality and attitudes to work.

	Core task performance	Citizenship behavior
Emotional intelligence	0.25	0.36*
Willingness to work	0.35*	0.37*
Work interest	0.35*	0.47**
Job satisfaction	0.30	0.30*
Disengagement (aspect of risk)	0.31*	0.30*
Extraversion	0.20	0.43**
Creativity	0.25	0.45**
Conscientiousness	0.72**	0.39**
Positive affect	0.49**	0.42**

\*  $p < 0.05$ , \*\*  $p < 0.01$

The table shows:

- EI was related most clearly to citizenship behavior, as expected.
- Willingness to work and work interest were clearly related to both performance dimensions, but job satisfaction was less so, also confirming expectations.

- Risk of disengagement was another variable related to performance.
- Personality variables were all related to citizenship behavior as expected, but only two were related to core job performance, viz. conscientiousness (strongly) and positive affect.

There may be some doubt that Machiavellianism is an appropriate component of EI in the present context. It was therefore excluded from the EI index, and correlations were computed between the revised EI index and performance. For citizenship behavior, the correlation rose to 0.44, while it was not changed for core tasks.

Some of the common variance may be due to impression management. The Crowne-Marlowe scale (Crowne & Marlowe, 1960) was there used as a control variable in computing partial correlations, see Table 5.

Table 5. Partial correlations between work criteria and measured variables of personality and attitudes to work, impression management held constant statistically

	Core task performance	Citizenship behavior
Emotional intelligence	-0.03	0.22
Willingness to work	0.37*	0.37*
Work interest	0.30*	0.44**
Job satisfaction	0.29	0.30**
Disengagement (aspect of risk)	0.28	0.27
Extraversion	0.14	0.40**
Creativity	0.20	0.42**
Conscientiousness	0.64**	0.27
Positive affect	0.39**	0.34*

\*  $p < 0.05$ , \*\*  $p < 0.01$

Table 5 shows the same trends as Table 4, only weaker. Hence, impression management could only explain a minor part of the findings.

There was a gender difference, women performing better than men. The difference was quite large with regard to core job tasks, 0.57 in standardized units ( $p < 0.06$ ), but marginal and not significant in citizenship behavior (0.19, n.s.), yet favoring women even in that dimension. About sixty percent of the gender difference in core task performance was accounted for by variation between men and women in EI.

### Personality and EI

Does EI contribute anything beyond more traditional personality scales? We calculated correlations between EI and the four personality scales, see Table 6 which also contains partial correlations where impression management has been partial led out.

Table 6. Correlations between EI and personality variables.

Variable	Core task	Citizenship
	Raw correlation with EI	Partial correlation with EI (impression management held constant statistically)
Extraversion	0.64**	0.68**
Creativity	0.43**	0.42**
Conscientiousness	0.25	-0.13

\*  $p < 0.05$ , \*\*  $p < 0.01$

It is seen that extraversion was quite strongly related to EI, the other three personality dimensions weaker so, especially after control for impression management. Hence, EI was not fully accounted for by the dimensions of the five-factor model.

## Discussion

The attempt to isolate a dimension of EI was partly successful. We have no explanation why the episodes subtest failed other than that EI-related skills among salespersons possibly focus primarily on the ability to perceive and understand the meaning of emotional cues in interpersonal situations. The basis of a paper-and-pencil format for the episodes sub-test was presumably very remote from the circumstances of customer interaction in which they typically draw on their EI-related skills. It was also interesting to see that our measure of ability to withstand failures converged with other aspects of emotional intelligence.

The three broader consequences of EI were related as expected. People high in EI have in our research also previously been found to be high in work/life balance and less characterized by materialistic values and money obsession. The latter result is in line with our finding that high EI relates to the perception of self as an able money manager with firm financial control (Engelberg & Sjöberg, in press). We note the interesting and very strong relationship to affective tone. The cantankerous person is likely to be low in EI and a social failure.

The very large gender difference in EI, favoring the female group, was expected and further validated our procedures. The EI concept was validated also by being more strongly related to citizenship behavior than core job topics.

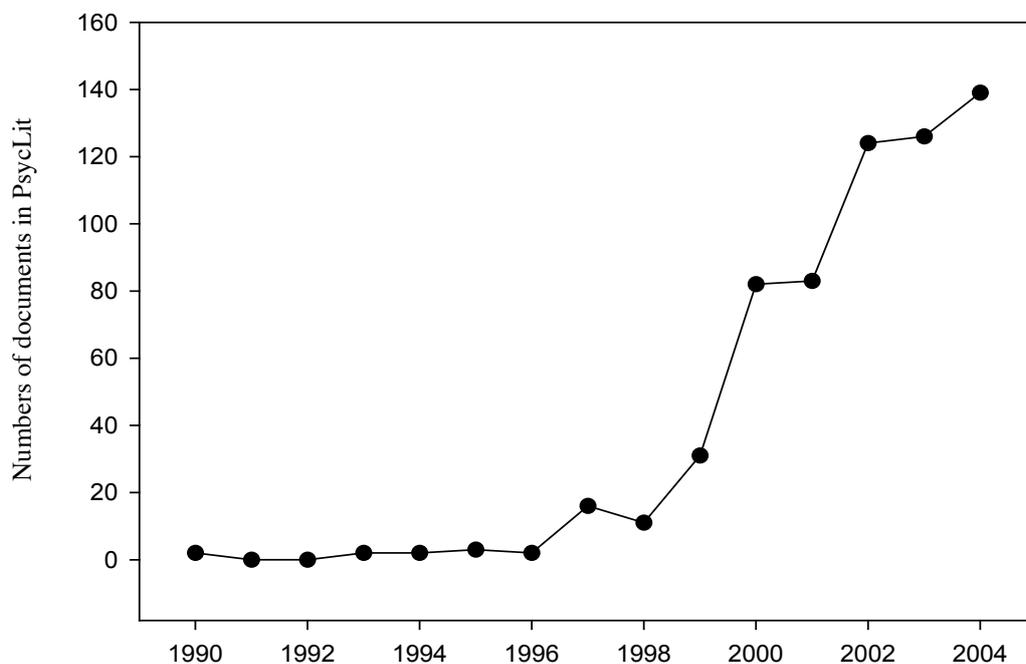
How do you promote sales performance? EI may be a factor, but the present results do not document that it is primary. It is even possible that some aspects of EI may be counterproductive in sales work (Shultz, 1993). Personality factors such as conscientiousness and positive affect seem to be of prime importance, both for core tasks and citizenship behavior. People who are strongly driven by a sense of duty, at the same time as they have a positive and cheerful outlook on life appear to be the best salespersons. They may also be best at most other jobs, of course. Work interest and willingness to work are other important factors, in agreement with previous work. Another interesting possibility is to measure attributions for failure and success, since the type of attribution used by a salesperson seems to be related to performance (Badovick,

1990; Johnston & Kim, 1994; Morris, LaForge, & Allen, 1994). Scales for mapping of such attributions have recently been published (Dixon, Spiro, & Jamil, 2001) and may be useful in training contexts (Schulman, 1999).

As mentioned above, considerable research, supported here, has shown that extraversion and conscientiousness are useful predictors of sales performance. Several other dimensions are needed to understand more fully the traits of a good salesperson. It is possible that some sales situations favor a manipulative attitude in a salesperson, but we believe these to be exceptional. The popular literature on the topic stresses responsible and competent behavior, as well as “people skills”, much in line with the present study, among successful salespersons<sup>3</sup>. The way salespeople’s personality is perceived by is of course another matter. A perception of someone as untrustworthy and manipulative would be destructive for sales, and would be expected to occur in particular for those who are poor performers. The perception of salespeople should be crucial, particularly in view of the increasing demand for a customer focus in order to compete for business. Satisfied customers tend to contribute to company profitability by several mechanisms such as patronage and words of mouth (Oliver, 1997) and, to this end, there should be a need for adaptability in emotional aspects of the relation between customers and salespeople.

We believe the concept of EI is interesting and catches an important facet of work life and of life in general as well. The premature marketing of the concept in such books as those by Goleman (Goleman, 1995, 1998) may have been an obstacle to a widespread more serious interest. Yet, research on the concept is becoming increasingly popular, see Fig. 2.

Fig. 2. The development of research interest in EI measured as number of items in PsychINFO database with the search term “Emotional Intelligence”.



We would like to stress the need for a revival of the traditional concept of social intelligence, or social skills (Kihlstrom & Cantor, 2000). Emotional and social intelligence are not necessarily the same. Emotional skills probably enter as an ingredient in social skills, but the latter is a wider concept. Also, some emotional skills may be more intra- than interindividual in their implications. We think the omnibus approach by such authors as Goleman or Bar-On is making emotional intelligence somewhat fuzzy and important distinctions may be missed. Bar-On even claimed that EI is Aeverything which is good@. We cannot take such a concept seriously.

The early work on social intelligence has been prematurely dismissed, and interesting results were reported within Guilford=s large project on the structure of intellect. Another, more current, approach is due to Sternberg (Sternberg et al., 2000) and his concept of practical intelligence. In future work with various industrial applications, such as in sales or leadership, we look forward to more penetrating analyses of social and emotional skills and better measurement methods. We believe results such as the present ones encourage further developments.

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