

# “Field sales manager scrutiny in the digital age: LMX meets Big Brother”

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| ARTICLE INFO | Susan K. DelVecchio (2012). Field sales manager scrutiny in the digital age: LMX meets Big Brother. <i>Innovative Marketing</i> , 8(1) |
| RELEASED ON  | Thursday, 26 April 2012                                                                                                                |
| JOURNAL      | "Innovative Marketing "                                                                                                                |
| FOUNDER      | LLC “Consulting Publishing Company “Business Perspectives”                                                                             |



NUMBER OF REFERENCES

0



NUMBER OF FIGURES

0



NUMBER OF TABLES

0

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# Field sales manager scrutiny in the digital age: LMX meets Big Brother

## Abstract

Sales managers today can leverage technology to achieve unprecedented levels of monitoring. While this is a relatively new tool for field sales, the ability to electronically monitor employee performance has been studied in other more traditional work settings. Thus this research integrates two fields of research: Electronic Performance Monitoring and sales force automation. Based on this integration proposals are offered and tested. The effect of this newfound level of surveillance is significant when the psychological contract between salesperson and manager has been breached. The pattern of findings may suggest a solid working relationship between salesperson and manager can ameliorate any possible negative effects of this enhanced scrutiny.

**Keywords:** sales management, leader-member exchange theory, industrial sales.

## Introduction

Sales managers today have the ability to monitor every stage of the personal selling process. Pre-call planning activities can be scrutinized using screenshot recording software. Even follow-up e-mails to buyers are routinely screened (Needleman, 2010; ePolicy Institute's, 2007). Providing managers with these "awareness technologies" is a booming business estimated to be approximately \$50 million (Gartner Group 2010 study). What, then, may be the effect of electronically monitoring the field sales force? How does the autonomous, independent and boundary-spanning salesperson react to what some have described as the 'big brother' effect? Answers were sought in two areas of research: sales force automation (SFA) and electronic performance monitoring (EPM) literature. A synthesis of these two streams of research offers a testable research proposal. This proposal is empirically tested using responses from a cross-sectional sample of industrial salespeople.

While new "awareness tools" for managers abound, the idea of electronically monitoring employees is not new. Electronic performance monitoring has been defined as "the use of electronic instruments or devices such a computer systems to collect, store, analyze and report individual or group actions or performance (D'Urso, 2006). Some of the studies conducted in sales management area may offer suggestions and or have some relevant implications. At this point in the

research effort, however, the suggestions and implications carry caveats. Broadly speaking the caveats exist because studies performed to date do not focus on the effect of e-monitoring on the field sales force. A few studies have examined monitoring and technology in the personal selling arena – and they do seem to suggest that sales manager monitoring is not scaring salespeople away from using this technology (i.e. positive correlations have been found between salesperson use of technology and managerial monitoring in three studies: Eggert and Serdaroglu, 2011; Moutot and Bascoul, 2008; and Onyeham Swain and Hanna, 2010). Beyond this positive relationship, however, very little is known.

Some studies suggest performance is *not* inhibited by e-monitoring (Bhattacharjee, 1998; Onyeham, Swain and Hanna, 2010). Still others suggest its effect *does* exist and may be relegated to maintaining but not initiating customer relationships (Moutot and Bascoul, 2008). Finally, the recent work by Eggert and Serdaroglu (2011) *failed* to find a significant relationship between sales managers monitoring their subordinate's use of SFA and the salesperson's subsequent performance. A very cloudy picture of e-monitoring exists today. See Table 1 for summary of relevant SFA literature. This lack of clarity may be attributable to a lack of focused attention on e-monitoring.

Table 1. Relevant SFA studies

| Year | Authors             | Variable most closely related to sales manager e-monitoring                                                                                                                                                                                 | Sample                             | Outcomes significant                                                      | Outcomes not significant |
|------|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|---------------------------------------------------------------------------|--------------------------|
| 2011 | Eggert & Serdaroglu | "Supervisory SFA control" = 5 items measuring the extent to which supervisor specifies activities expected to perform using SFA, monitors to see if they are performing those activities and informs them how they are meeting expectations | Pharmaceutical sale reps $n = 244$ | SFA usage internalcorr+.304<br>SFA usage customer relationships corr+.297 | Perf corr +.109          |

Table 1 (cont.). Relevant SFA studies

| Year | Authors                | Variable most closely related to sales manager e-monitoring                                                                                                                           | Sample                                              | Outcomes significant                                                                                                                                                              | Outcomes not significant                                                          |
|------|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| 2010 | Onyemah, Swain & Hanna | Monitoring 3 items: (1) Keeps close watch on how I spend my time; (2) carries out detailed examination of my call & activity reports; (3) checks to see if I'm following instructions | Financial services (bank employed)<br><i>n</i> = 82 | Sales techn. usage<br>corr +.25<br>Performance corr +.21                                                                                                                          |                                                                                   |
| 2008 | Moutot & Bascoul       | SP reporting to SM-before and after SFA implementation (reporting to the manager using SFA on the number and type of sales calls, etc.)                                               | Waste Mgmt Co.<br><i>n</i> = 172                    | Reporting to SM using SFA corr -.163 to sales call ratio. Reporting to SM using SFA and proposal ratio +.248 path from reporting (to SM via SFA) to CRM relationship maintenance. | Path from reporting (to SM via SFA) to CRM relationship initiation or termination |
| 2005 | Johnson & Bharadwaj    | Outcome versus behavior-based control system and digitization of sales function                                                                                                       | Web-based B2B sales comprised 79% of sample         | Effectiveness increased when digitization used in outcome control (low monitoring)<br>Effectiveness decreased when digitization used in behavior control (high monitoring)        |                                                                                   |

SFA and sales management studies have examined monitoring from an aggregated and general viewpoint rather than focusing on e-monitoring specifically. This viewpoint may be an impediment to understanding the effect of e-monitoring. The aggregated and general view of e-monitoring now reflected in sales management research is based on two assumptions. SFA studies seem to assume that (1) monitoring is a consistent part of a control system; and (2) e-monitoring has the same effect as any other form of monitoring. Both of these assumptions may be questionable. The findings of the Johnson and Bharadwaj (2005) study suggest digitization of the sales process was effective *without* monitoring (such as that used with an outcome-based control system). Drawing this suggestion from the findings of Johnson and Bharadwaj (2005) may be problematic. Monitoring is not consistently used as part of a control system thus we cannot be sure of the effect of monitoring alone (Onyemah and Anderson, 2009). It is likely the idea that SFA will be more effective without monitoring runs counter to managerial intent as this one of the major reasons behind SFA (Gohmann et al., 2005; Widmier et al., 2002). Given the unique nature of e-monitoring, it would be useful to specifically examine the effect of managerial e-monitoring. Without this separate and distinct focus, SFA studies provided limited insights to the potential effect of managerial monitoring – and even less concerning the electronic form.

Unlike more traditional forms, e-monitoring provides voluminous data about multiple dimensions of performance and can be pervasive. Comparative studies have shown e-monitoring effects are more varied than other forms of monitoring (Aiello, 1993; Aiello and Svec, 1993; Stanton and

Weiss, 2000). It may be that the novelty surrounding these advanced forms of technology is more likely to be seen as invasive (McNall and Roch, 2007). Certainly sales management studies believe this may be a reason why SFA adoption has lagged. Some SFA studies have speculated about the possibility of “Big Brother” perceptions (Robinson, Marshall and Stamps 2005; Speier and Venkatesh, 2002). It may be the case that the field salesperson working in a non-proximal location may react to e-monitoring in a more pronounced fashion (Challagalla, Shervani & Huber, 2000). While the findings of these studies suggest these possibilities, none to date has tested the effect of technologically enhanced managerial monitoring on the field salesperson.

Because sales management studies tend to examine monitoring as a part of a systematic control method – and make no distinction between conventional and the new more sophisticated form of e-monitoring, we make not be fully understanding its impact. When we assume e-monitoring is being used as a part of cohesive control system we fail to fully reflect the variations in each firm's management style. When we assume its effects do not differ from any other form of monitoring, we may be glossing over its varied effects. Certainly the very managers who are e-monitoring are engaging in a wide array of practices and carry different opinions (from ‘necessary evil’ to ‘increased awareness’) (Bush, Bush and Orr, 2010). If the very managers charged with engaging in e-monitoring do not agree, then it stands to reason this heterogeneity may be a significant predictor.

**EPM and the field salesperson.** Meta-analytical studies of electronic performance monitoring (EPM)

of employees repeatedly show e-monitoring can have both positive and negative effect on job outcomes (Carroll, 2008; Sewell and Barker, 2006). One challenge in reviewing the EPM literature was the fact that e-monitoring has been studied in a mix of work settings. Thus this review identifies studies that were most relevant to field sales. Of particular interest to the field sales setting are the EPM findings regarding the execution of complex tasks, which require creative problem solving and are performed in a non-proximal setting. The subsequent sections discuss these findings as they relate to three categories: (1) intra-organizational issues (such as employee relations); (2) inter-organizational issues (such as customer interactions); and (3) overall sales performance.

EPM can provide continuous, timely and detailed information about the actions of the salesperson. This can lead to the perception by the employee that EPM provides more accurate performance reviews (as Chalykoff and Kochan found in their 1989 study of the use of EPM with internal revenue service employees charged with answering tax preparers' inquiries). The ability of the salesperson to access that same data being monitored adds to the transparency of the evaluation process (Onyemah and Anderson, 2009)<sup>1</sup>. Thus EPM can encourage self-evaluation and self-management (Mason et al., 2002).

The degree to which EPM is favorably perceived by sales employees may be in question. Medical professionals, for example, were more likely to resist EPM and see this effort as insulting to their abilities (Sewell and Barker, 2006). The managerial feedback provided by e-monitoring can be seen as more intimidating and hostile (Nussbaum and duRivage, 1986). The monitoring of e-mails, for example, is more likely to be viewed as appropriate by employers than employees (Allen, Coopman, Hart & Walker, 2007). This difference in viewpoint can give rise to employees seeing EPM as invasive. Within the SFA literature the work of Moutot and Bascoul (2008) suggest accuracy of EPM may be manipulated when salespeople report more sales call activities following an EPM system implementation. Thus one may claim EPM will encourage misleading reporting by the salesperson and result in negative outcomes.

EPM can result in more data and more current data. Potentially this can result in more accurate and well-received performance evaluations. Equally likely, unfortunately is the possibility the professional salesperson will resent this intrusion. We suggest these two outcomes will depend on the nature of the psychological contract between sales manager and salesperson. Specifically the following research proposal is offered.

*RP<sub>1</sub>: When the psychological contract between salesperson and manager is based on the expectation that managers will act with due care and diligence to protect the information gathered about the employee and conduct monitoring for good purposes, then the outcomes should be positive. If, however this psychological contract has been breached, EPM would carry negative outcomes.*

## 1. Method

**1.1. Data collection and samples.** To create our sampling frame a list of manufacturing firms (from the American Business Directory) was randomly generated. This list was then subjected to screening and only those forms that employed a geographically dispersed field sales force<sup>2</sup> were invited to participate. Firms who agreed to participate were mailed a packet of materials for each of their salespeople. Responses were sent directly to university researchers to assure confidentiality. One reminder request was mailed to non-respondents three weeks later. Two samples were generated using this method: one set for pretesting the e-monitoring scale and another set to test the research proposal. Response rates for both datasets fell within typical ranges as described by Carter, Dixon and Moncrief (2008) (i.e. pretest dataset response rates of 29.6% as 101 complete responses were received from 341 distributed and 23.6% for the full scale dataset resulting in 189 usable responses). Two comparisons were conducted (to examine the representativeness of the samples). The profile of respondents was compared to that of nonrespondents. The profile of the respondents drawn from the ABI database was compared to those members of a similar database. These comparisons failed to find any proportional differences (e.g., annual revenue, number of employees, type of industry). These comparisons imply the data are untainted by nonresponse bias (see Table 2).

<sup>1</sup> Onyemah and Anderson (2009) simple bivariate correlation between transparency of evaluative criteria and managerial monitoring was +.38 in their large scale sample ( $n = 1,290$ ).

<sup>2</sup> Each firm was screened on these criteria and only those firms who managed and employed their own sales force were asked to participate in this study (no agents or outside reps).

Table 2. Comparison of respondent to nonrespondent companies

| Demographic variables                | % of companies employing respondents <sup>a</sup> | % of companies employing nonrespondents <sup>b</sup>                             | Significance tests                      |
|--------------------------------------|---------------------------------------------------|----------------------------------------------------------------------------------|-----------------------------------------|
| Number of employees                  |                                                   |                                                                                  | Chi-square = .20<br>d.f. = 4<br>p = .99 |
| 20-49                                | 39.5                                              | 56.5                                                                             |                                         |
| 50-99                                | 31.5                                              | 30.4                                                                             |                                         |
| 100-249                              | 21.1                                              | 8.8                                                                              |                                         |
| 250-499                              | 5.2                                               | 0.0                                                                              |                                         |
| 500-999                              | 2.6                                               | 4.3                                                                              |                                         |
| Annual Sales                         |                                                   |                                                                                  | Chi-square = 1.12<br>d.f.= 6<br>p = .98 |
| \$2.5-5.0 million                    | 18.5                                              | 26.1                                                                             |                                         |
| \$5-10 million                       | 10.5                                              | 39.0                                                                             |                                         |
| \$10-20 million                      | 26.3                                              | 26.1                                                                             |                                         |
| \$20-50 million                      | 31.6                                              | 0.0                                                                              |                                         |
| \$50-100 million                     | 7.9                                               | 0.0                                                                              |                                         |
| \$100-500 million                    | 2.6                                               | 4.4                                                                              |                                         |
| \$500 million-1 billion              | 0.0                                               | 4.4                                                                              |                                         |
| Comparison of respondents to overall |                                                   |                                                                                  |                                         |
|                                      | Percentage of Lexis-Nexis Dossier database        | Percentage of respondents from American Business Directory Database <sup>c</sup> | Significance tests                      |
| Annual revenue                       |                                                   |                                                                                  | Chi-square = .75<br>d.f. = 6<br>p = .99 |
| \$2.5-5 million                      | 33.3                                              | 7.0                                                                              |                                         |
| \$5-10 million                       | 22.9                                              | 12.9                                                                             |                                         |
| \$10-20 million                      | 18.0                                              | 31.9                                                                             |                                         |
| \$20-50 million                      | 14.2                                              | 21.1                                                                             |                                         |
| \$50-100 million                     | 5.2                                               | 16.2                                                                             |                                         |
| \$100-500 million                    | 4.3                                               | 10.8                                                                             |                                         |
| \$500 million-1 billion              | 1.5                                               | 0.0                                                                              |                                         |

Note: This comparison conducted for sample 1 ( $n = 101$ ). <sup>a</sup>38 companies employing salespeople who completed surveys. <sup>b</sup>23 companies employing salespeople who did not respond. In both databases, manufacturers (SIC 2000 and 3000) headquartered in Southeastern USA. <sup>c</sup>Full scale sample,  $n = 189$ .

With the exception of e-monitoring all variables were measured using pre-existing scales. E-monitoring measure was tested using both pretest and full scale data sets. This five item scale asked respondents to rate the degree to which they believed sales management used data from their IT system to monitor their sales efforts (see Table 3 for a listing of all five items). Work smart measures the direction of effort while work hard is designed to measure the amount of effort (Sujan, Weitz and Kumar, 1994). Performance was measured using three - item scale which asked respondents to rate their achievements regarding sales, profitability and market share objectives. Given the boundary spanning role occupied by the field salesperson and the pivotal importance of the sales manager, psychological contract status was measured using the quality of the leader-member exchange (Suazo, Turnley and Mai-Dalton, 2008).

## 2. Results

**2.1. Measurement.** Pretest results support the internal consistency of the e-monitoring measure (composite reliability of .86 and variance extracted of .56). Confirmatory factor analyses yielded a goodness of fit index of .9659 (and Bentler-Bonnet Non-

Normed Index of .9586). Pretest results indicate this measure demonstrates a meaningful degree of nomological validity as it was significantly correlated with every indicator of IT capability (Grewal, Charakravarty and Sainji, 2010). Analyses of the full scale dataset suggest the measure of e-monitoring demonstrates acceptable levels of reliability (composite reliability .82) and similar factor patterns to those of the pretest results (see Table 3). Factor loadings ranged from .52 to .80 suggesting convergent validity. Discriminant validity was tested through the application of Fornell and Larcker's (1981) test which recommends comparing the average variance extracted with the variance shared between the e-monitoring construct and all other constructs. The average variance extracted estimates were greater than the squared correlations between e-monitoring and each of the other constructs.

All other variables (i.e. work-hard, work-smart, performance, leader-member exchange) were adapted from previously validated scales. Internal reliability as indicated by coefficient alphas was all at or above .60 level (see Table 4) for scale properties and inter-correlations.

Table 3. E-monitor scale properties: pretest and full scale datasets

|                                 | Items                                                                                                                                 | Std. $\beta$                |                           |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|---------------------------|
| Mean<br><b>19.88</b><br>16.51   | Management uses the information from our sale systems to tell me what specific selling behaviors I ought to be doing on my job.       | <b>.75</b><br>.66           | C.R.<br><b>.86</b><br>.82 |
|                                 | Management uses the information from our sale systems to monitor and control my selling efforts.                                      | <b>.82</b><br>.52           |                           |
|                                 | Information from my company's sales systems I used by management to point out to me when I am not using the right selling techniques. | <b>.81</b><br>.77           |                           |
|                                 | Information from my company's sales systems is used by management to pressure me to use specific selling methods.                     | <b>.83</b><br>.68           | V.E.<br><b>.56</b><br>.48 |
|                                 | Information from my company's selling systems is used by management to tell me what specifically I should be doing on my job.         | <b>.48</b><br>.80           |                           |
| Std. dev<br><b>6.62</b><br>5.86 |                                                                                                                                       |                             |                           |
| Measurement model properties    |                                                                                                                                       | Pretest                     | Full scale                |
|                                 | Chi-Square                                                                                                                            | <b>10.06 (prob = .0736)</b> | 19.60 (prob = .0015)      |
|                                 | Goodness of Fit index                                                                                                                 | <b>9659</b>                 | 9569                      |
|                                 | Bentler-Bonnett non-normed index                                                                                                      | <b>9586</b>                 | 9051                      |

Note: Bold font = pretest dataset results ( $n = 108$ ). Regular font = full scale dataset results ( $n = 189$ )

Table 4. Variables: scale properties and intercorrelations. Coefficient alpha on the diagonal ( $n = 189$ )

| Variable                      | Mean                                                                                                                                                | Std. dev. | E-monitor | LMX | Perf | Work-hard | Work-smart |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|-----|------|-----------|------------|
| E-monitor                     | 16.51                                                                                                                                               | 5.87      | .82       |     |      |           |            |
| LMX                           | 40.69                                                                                                                                               | 8.71      | -.13      | .89 |      |           |            |
| Perf                          | 9.28                                                                                                                                                | 3.04      | -.05      | .07 | .79  |           |            |
| Work hard                     | 9.33                                                                                                                                                | 2.65      | -.02      | .08 | .23  | .71       |            |
| Work smart                    | 21.47                                                                                                                                               | 3.39      | .09       | .22 | .16  | .10       | .60        |
| Sample item (number of items) |                                                                                                                                                     |           |           |     |      |           |            |
| LMX                           | I have enough confidence in my sales manager that I would defend and justify his or her decisions if he or she were not present to do so(7)         |           |           |     |      |           |            |
| Perf                          | My actual performance on the sales objectives during last year can be described as much higher, higher, achieved exact, lower, much lower, etc. (3) |           |           |     |      |           |            |
| WorkHard                      | I work long hours to meet my sales objectives (2)                                                                                                   |           |           |     |      |           |            |
| WorkSmart                     | Every time I lose an order, I analyze what went wrong in great detail (4)                                                                           |           |           |     |      |           |            |

**2.2. Multivariate Analyses of Variance.** Two MANOVAs were conducted: one testing the effect of psychological contract breach (i.e., low levels of leader-member exchange relationships) and one testing the effect of e-monitoring when these contracts have not been breached (i.e., high levels of leader-member exchange relationships). Because this study examines three outcomes (work hard, work smart and performance) the use of MANOVA provides an overall test of all three outcomes simultaneously. The sample was divided into either high or low LMX and MANOVA then examined the outcomes when e-monitoring levels were high or low. The resultant categories (and  $n$  sizes) are as follows.

| E-monitoring                | Low LMX<br>(psychological<br>contract breach) | High LMX<br>(psychological<br>contract intact) |
|-----------------------------|-----------------------------------------------|------------------------------------------------|
| Low levels of e-monitoring  | $n = 45$                                      | $n = 52$                                       |
| High levels of e-monitoring | $n = 56$                                      | $n = 36$                                       |

As per the research proposal, significant differences were expected when e-monitoring is occurring in a low LMX (i.e, psychological contract breach) situation but no differences would exist when the contract was intact. The MANOVA results are reported on Table 5 and indicate there are substantial differences in outcomes when low LMX managers are engaging in e-monitoring. When LMX is low (suggesting a breach of contract) the analyses found the overall MANOVA was significant at .08 levels. It was intriguing to find, however, that rather than these outcomes being harmed by e-monitoring, they are helped. A Scheffe test of pairwise comparisons indicate much – if not all – of this differences is attributable to work smart. As expected no differences were detected among the salespeople who reported experiencing high quality leader-member exchange relationships. This suggests that e-monitoring has little effect on outcomes when the psychological contract between salesperson and manager is intact.

Table 5. Results

| LMX low→psychological contract broken<br>Overall MANOVA $F = 2.30$ (probability .0823) |                           |                            |                                                 |                         |
|----------------------------------------------------------------------------------------|---------------------------|----------------------------|-------------------------------------------------|-------------------------|
| Dependent variable                                                                     | Low e-monitor<br>$n = 45$ | High e-monitor<br>$n = 52$ | Significant differences<br>$\text{Alpha} > .05$ | F-value                 |
| Work hard<br>Avg (Std. error)                                                          | 9.30<br>(.36)             | 8.92<br>(.36)              |                                                 | .53<br>( $p = .4699$ )  |
| Work smart<br>Avg (Std. error)                                                         | 19.88<br>(.49)            | 21.46<br>(.46)             | High > Low                                      | 5.59<br>( $p = .0201$ ) |
| Performance                                                                            | 9.01<br>(.45)             | 8.77<br>(.37)              |                                                 | .17<br>( $p = .6842$ )  |
| LMX high→psychological contract intact<br>overall MANOVA $F = .53$ (probability .53)   |                           |                            |                                                 |                         |
| Dependent variable                                                                     | Low e-monitor<br>$n = 56$ | High e-monitor<br>$n = 36$ | Significant differences<br>$\text{Alpha} > .05$ | F-value                 |
| Work hard<br>Avg (Std. error)                                                          | 9.75<br>(.38)             | 9.31<br>(.45)              |                                                 | .55<br>( $p = .4583$ )  |
| Work smart<br>Avg (Std. error)                                                         | 22.54<br>(.42)            | 21.83<br>(.57)             |                                                 | 1.03<br>( $p = .3140$ ) |
| Performance                                                                            | 9.79<br>(.44)             | 9.60<br>(.52)              |                                                 | .08<br>( $p = .7780$ )  |

## Conclusion

Because e-monitoring is continual, provides voluminous details and can be pervasive, it differs dramatically from any other form of managerial monitoring. The contribution of this research effort, therefore, is the attempt at focusing on just this form of e-monitoring. In doing so the findings here confirm some research proposals and reverse still others. More specifically findings here suggest e-monitoring extensively will not differ from low levels of e-monitoring when the salesperson and manager enjoy a good working relationship. In this cross sectional sample of industrial salespeople who feel they have a strong psychological contract with their management none of the outcomes tested here (i.e. performance, working smart or working hard) differed under high e-monitoring or low e-monitoring conditions. When, however, this contract has been breached then significant differences between high and low monitoring conditions were evidenced. While the proposal expected these differences, the results run counter to the anticipated direction. Rather than suffering under contractual breach and high e-monitoring, it appears the field salesperson will express higher (not lower) levels of working smart behaviors. The contribution of this effort is twofold (1) reflects the unique nature of and takes a focused look at the effects of e-monitoring; and (2) confirms expectations of no effect when LMX is high and offers intriguing findings of the effect of e-monitoring under poor LMX conditions.

The findings here suggest sales managers should seek to develop and maintain strong working relationships with each salesperson. When leader-member exchange is of high quality, this implies the psychosocial contract between the field sales man-

ager and his geographically dispersed subordinates is strong enough to withstand the effects of e-monitoring. While some studies have shown that professionals tend to resent e-monitoring as an intrusion, results here imply this resentment will be ameliorated by good leader-member relationships. Further, these results offer sales managers advice as they struggle to find a way to make e-monitoring productive (Bush, Bush and Orr, 2010). One of the contexts under which e-monitoring can be accepted and perhaps be productive is when that all important lynch pin, the sales manager, has established a solid psychological contract with subordinates.

It was intriguing to find that rather than hurting outcomes, high monitoring under poor LMX conditions was beneficial. Salespeople who did not feel they had a good working relationship with their sales manager tended to rate their motivation to work smart as higher than their counterparts. This may suggest that e-monitoring may compensate for (rather than add to) poor leader-member exchange relationships. A breach in the psychological contract between field salesperson and manager may be making the data provided by e-monitoring more important to the salesperson. The salesperson may be engaging in "reverse monitoring" and is using these technological tools to monitor themselves, record, analyze and document their own performance appraisals. Certainly SFA investments have hoped these tools would empower salespeople to be self-managing. One possible implication of this finding may be the hopes are being realized. Given the levels of working smart are higher in high e-monitoring conditions for salespeople who also express poor LMX it may be these salespeople are relying on

this data, these self-assessment tools to protect themselves from what may be a breach of their psychological contract.

E-monitoring may work in ways to close both the psychological and geographical gap between the manager and the salesperson. In a study comparing remote salespeople to proximally close salespeople, Challagalla, Shervani and Huber (2000) found that remote salespeople were more likely to be satisfied with a supervisor with an activity orientation, i.e., a

supervisor who tends to engage in the monitoring of salespeople, among other activities; the same effect was not found for proximally close salespeople. In their suggestions for future research, Challagalla, Shervani and Huber (2000) recommend testing whether IT can compensate for these differences in results. This call for additional research examining the effect of e-monitoring on outcomes arising from the physical distance between sales manager and salesperson may well be worthwhile.

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