The Effects of Formal Controls on Supervisee Trust in the Manager in New Product Selling: Evidence from Young and Inexperienced Salespeople in China*

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How should sales managers enhance the support and commitment of young, inexperienced salespeople during a new product selling? Some scholars have suggested sales managers should use formal controls (i.e., output and process controls) to develop the salespeople's trust in their benevolence. Drawing on a sample of young, inexperienced salespeople with rather low education selling new products in China's competitive, volatile, and transitional economic environment, the present study investigates the relationship between output and process controls and supervisee trust (i.e., the salesperson's trust in the sales manager). The empirical results of the study suggest that process and output controls have differential effects on supervisee trust. Specifically, the results indicate that process control enhances supervisee trust by itself and also under conditions of intense training for new product selling and when market volatility is perceived as high. However, process control hinders supervisee trust when the manager is long-term oriented and engages in participative supervision. It was found that output control engenders supervisee trust when the manager is long-term oriented but hinders supervisee trust when salespeople have undergone intensive training for new product selling. Implications of these results are provided for both researchers and practitioners involved in launching and selling new products.

Introduction

any factors affect a firm's new product success, but recent literature has witnessed an increasing attention to the role of salespeople (Anderson and Robertson, 1995; Atuahene-Gima, 1997; Hultink and Atuahene-Gima, 2000). This line of research suggests that in markets characterized by high uncertainty and rapid technological change,

salespeople may require special skills and may need to make extra effort and to have a greater commitment to selling new products successfully. Indeed, because of the uncertainties and risks associated with new products, salespeople may actually prefer the comfort of selling existing products rather than new ones (Atuahene-Gima, 1997). It has been suggested that one way by which sales managers may overcome this problem is to engage in behaviors that enhance the salesperson's trust in the sales manager (hereafter supervisee trust) during the new product launch and selling process (cf. Atuahene-Gima and Li, 2002). During a new product launch, a sales manager provides direction and advice well as rewards and perhaps punishment through the use of formal sales control mechanisms in exchange for the salesperson's effort and performance (cf. Rich, 1997). Despite their

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importance, however, little research has examined how such controls influence salespeople's trust in sales managers during a new product selling.

The purpose of the present study is to address this oversight. Specifically, it focuses on the two formal control mechanisms: process control and output control (Flamholtz, Das, and Tsui, 1985; Ouchi, 1979). Process control refers to the extent to which a sales manager emphasizes procedures and behavioral activities in monitoring, evaluating, and rewarding salespeople. In contrast, output control refers to the extent to which a sales manager places emphasis on results when monitoring, evaluating, and rewarding salespeople (Anderson and Oliver, 1987). The present study's focus on formal controls is not to deny the importance of social controls such as self-control and social and cultural controls, which are unwritten and

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typically represent a worker-initiated system that influences their behaviors (Jaworski, 1988, p. 26). These controls are generally held to be positively related to trust (e.g., Aulakh, Kotabe, and Shay, 1996; Das and Teng, 1998). The focus of the present study is on formal output and process controls because they are written, management-initiated mechanisms that influence the probability of employees behaving in ways that support the stated managerial objectives (Aulakh, Kotabe, and Sahay, 1996; Das and Teng, 1998; Jaworski, 1988).

Regarding research context, this study focuses on young and inexperienced salespeople in China for two reasons. First, many salespeople in China's transition economy are young and inexperienced and have low education levels. Thus, they tend to have a high level of dependence on their sales managers. If selling a new product is potentially problematic for salespeople, as contended by Atuahene-Gima (1997) and Hultink and Atuahene-Gima (2000), and if supervisee trust plays a mitigating role, the present study's reasoning is that this may be more likely among this type of salespeople. Second, Doney, Cannon, and Mullen (1998, p. 601) argued that "the importance and benefits of trust, and the emerging global and multicultural workplace, highlight the need for us to understand how trust develops" in different national culture contexts. For example, in Western societies characterized by high individualism and low uncertainty avoidance managers have the power to control some behaviors but employees retain control over other behaviors. However, in the societies such as China with strong collectivism and high uncertainty avoidance the situation is markedly different. As Shenkar and von Glinow (1994, p. 62) noted, "Unlike his/her Western counterpart, the Chinese managers impact not only the work domain, but also all other spheres of life of his/her subordinate, including even such matters as birth control." Clearly, formal controls and trust are significantly salient for salespeople's commitment and support for the manager's and firm's objectives in such a context.

For the preceding two reasons, the present study contends that the sales manager's use of output and process controls during new product selling may have more far-reaching implications for the perceived trust of salespeople in China than in Western societies (Atuahene-Gima and Li, 2002, p. 64). Indeed, a review of the literature shows that the linkage between formal controls and trust is surprisingly unclear (Das and Teng, 1998). Whereas some authors have

argued that formal controls enhance trust because they provide effective assessment, timely communication, and rewards (Ouchi, 1979; Sitkin, 1995), others suggest that they actually stifle trust because they shift organizational performance risk to the subordinate (e.g., Das and Teng, 1998; Moorman, Despande, and Zaltman, 1993). Further, although theoretical arguments suggest so (e.g., Ouchi, 1979), little research exists on the conditions under which formal control mechanisms influence trust formation. This lack of clarity and evidence represents a severe dilemma for sales managers concerning the role of output and process controls in enhancing supervisee trust, particularly during selling a new product.

Against this backdrop, the present study examines the main effects of formal control mechanisms on supervisee trust; then the moderating hypotheses are developed about the conditions under which sales controls may influence supervisee trust. The study's theoretical model is presented in Figure 1.

Background and Hypotheses

Supervisee Trust

Trust has been conceptualized within different analytical contexts: interpersonal (e.g., between peers, between subordinate and manager), interfirm, and personal–firm. Research on trust in the interfirm context emphasizes the impact of trust between channel members (e.g., manufacturer, wholesalers, retailers) on commitment (Doney and Cannon, 1997; Morgan and Hunt, 1994), long-term orientation (Ganesan,

1994), and propensity to stay in a relationship (Anderson and Weitz, 1989). The current study's analysis is at the interpersonal level and the focus is on supervisee trust in the manager.

Scholars have defined interpersonal trust in two dimensions: reliability and benevolence (cf. Doney and Cannon, 1997; McAllister, 1995). Reliability focuses on the objective credibility of an exchange partner, on whose words and behavior can be relied, whereas benevolence refers to the extent to which one partner will show due care and will look after another's welfare. Although both dimensions are important, this study focuses on the benevolence dimension, which is by nature affective. The focus on benevolence trust is not meant to downplay the importance of the reliability dimension of trust. Previous studies on managerial work have emphasized the importance of working relationships in accomplishing tasks, but the affective element of interpersonal relationships has largely been ignored (Gabarro, 1990). As Granovetter (1985, p. 490) observed, however, "continuous economic relations often become overlaid with social content that carries strong expectations of trust and abstention from opportunism." Empirical evidence has shown that affect-based trust relationships between individuals are prevalent in organizations and influence their employees' behavior and performance (McAllister, 1995).

Hence, the present study focuses on the benevolence dimension of trust and defines *supervisee trust* as the salesperson's belief that the sales manager genuinely cares and is concerned for his or her welfare in the process of new product selling (cf. Atuahene-Gima and Li, 2002; McAllister, 1995). This study's definition

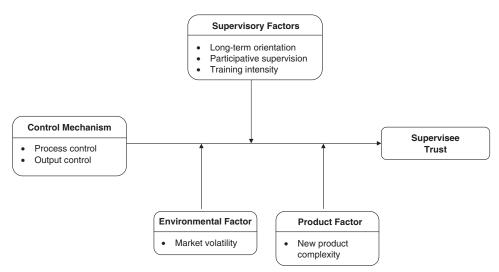


Figure 1. Conceptual Model

of trust is also relevant in the new product-selling context. In selling a new product, a salesperson takes on increased performance risk, assumes new selling tasks, and perhaps calls on new market and customer segments (Atuahene-Gima, 1997). In this situation, the salesperson is more likely at risk because the manager can administer organizational policies unfairly in evaluating performance—for example by not taking account of factors that affect performance but that are beyond the control of the salesperson—can show lack of care for the salesperson's interests, and can take inconsiderate and coercive actions in the face of problems in selling the new product. This is what Tepper (2000) called abusive supervision. Such risk and vulnerability of the salesperson vis-à-vis the manager are arguably higher in a high-power distance context such as China, where managers can be potentially tyrannical in their relationships with subordinates, particularly given the limited alternative opportunities for exit available to the employees (Hofstede, 1991).

Effects of Process and Output Controls on Supervisee Trust

The relationship between control mechanisms and trust is unclear in the literature. One view is that control mechanisms undermine the trust level between two partners. For example, Argyris (1952) argued that control mechanisms imply that one party does not trust the other. In the present study's context, this argument implies that when the sales manager is putting control mechanisms in place, the salespeople tend to think that the manager does not trust them. Given the reciprocal nature of trust, the salespeople will not trust the manager. The contrary view is that control mechanisms will help improve trust (Goold and Campbell, 1987). The key argument here is that "because control mechanisms provide a 'track record' for those who perform well, trust between the parties may eventually be nurtured and strengthened" (Das and Teng, 1998, p. 501).

Although there is little consensus on the relationship between control and trust, this study contends that the use of formal control mechanisms by the sales manager may facilitate supervisee trust. There are two reasons for this expectation. First, in the sales manager—salesperson relationship the use of control mechanisms by the manager have implications for the assessment of performance risks and thus perceived support and care by subordinates (Atuahene-Gima

and Li, 2002), thereby leading to perceptions of trust in the manager. Second, because the purpose of the control mechanisms is to provide effective assessment, timely communication, and rewards that can enhance employee performance, supervisee trust may eventually be nurtured and strengthened (Das and Teng, 1998; Sitkin, 1995).

More specifically, process control ensures that the salesperson receives rewards as long as process requirements are met, irrespective of the performance output achieved. It therefore reduces the pressure to produce outputs, since the organization rather than the salesperson assumes much of the performance risk (Anderson and Oliver, 1987; Cravens et al., 1993). Consequently, although process control may limit autonomy and self-control, it sends a positive signal of concern, care, and support from the supervisor. As Anderson and Oliver (1987) argued, when the supervisor relies on process control, employees feel committed and grateful because the supervisor assumes risk for them and provides them with a more nurturing climate. It could be argued that for salespeople who have considerable experience, have demonstrated their success over time, and have high skill levels, process control may decrease supervisee trust. However, in the context of selling new products, salespeople's prior experience and skills may not readily apply given the high uncertainties associated with new product selling. Thus, it is argued here that a positive relationship will be found between process control and supervisee trust in selling new products. This proposition is particularly salient in the Chinese setting characterized by strong collectivism and high uncertainty avoidance. Young, experienced Chinese salespeople are more likely to value the manager's care and support exemplified by the use process control. In China, people especially value reciprocity [hui bao], and favors are always remembered and returned (Graham and Lam, 2003). Hence,

H1a: Process control is related positively to supervisee trust in the manager in new product selling in China.

Output control represents a hands-off approach to managing salespeople, in that they are given a great deal of autonomy and independence in performing their duties. Output control may shift substantial performance risk to the salespeople because outputs may be affected by environmental and company factors beyond their control (Oliver and Anderson, 1994, p. 54). Hence, it may stifle supervisee trust in the

manager. The logic is that in selling new products associated with high risks and uncertainties, the sales managers transfer substantial performance risk to salespeople dealing to perceptions of lack of care and concerns. The great amount of autonomy and independence afforded by output control may be cherished by experienced salespeople (Anderson and Oliver, 1987). However, for young, inexperienced salespeople with low education in a high uncertainty avoidance culture and selling new products in a highly dynamic environment, the high performance risk may exacerbate feelings of helplessness and even perceived betrayal by sales managers (cf. Atuahene-Gima and Li, 2002). Hence,

H1b: Output control is related negatively to supervisee trust in the manager in new product selling in China.

Contingency Effects

The literature suggests that the control—trust relationship may depend on contextual factors. For example, Ouchi (1979) suggested that the inappropriate implementation of controls may result in unintended negative consequences, thus undermining trust between the parties. Jaworski (1988) argued that the effects of control mechanisms are contingent on the context in which the control is used. Sitkin and Stickel (1996) suggested that control mechanisms "can lead to escalating distrust if they are ill-suited to the task at hand" (p. 209). This study proposes that the relationship between sales control mechanisms and supervisee trust may depend on several contingency factors, including supervisory, environmental, and product factors.

Supervisory Factors

Prior research has found that managers' characteristics and behaviors are critical conditions for trust (Mayer, Davis, and Schoorman, 1995; Moorman, Despande, and Zaltman, 1993). Whitener et al. (1998) suggested that managers' behaviors may have considerable impact on the building of trust within subordinates. The present study focuses on three supervisory factors: long-term orientation, participative supervision, and training intensity.

Long-term orientation refers to the degree of importance the sales manager attaches to long-term as opposed to short-term goals during new product selling. Selling a new product involves long-term planning, customer education, and relationship building to generate significant sales output. A sales manager with a long-term orientation is less concerned with short-term outcomes but is more concerned with allowing time for the salesperson to learn and to gain experience in selling the new product. However, research shows that a long-term orientation may provide greater chance for opportunistic behavior by agents than does a short-term orientation (Grayson and Ambler, 1999). Recall that by using process control, the sales manager effectively reduces the salesperson's performance risk. Consequently, when the sales manager combines long-term orientation with process control, the perceived performance risk of the salesperson in selling the new product will be substantially reduced. With the pressure for short-term performance reduced substantially, process control becomes less critical in reducing the risks involved in selling the new product. Indeed, with the substantial reduction in performance risk, the salesperson may take advantage of benefits provided by process control without reciprocating and may actually act opportunistically (Whitener et al., 1998). Formally, this study posit that

H2a: The positive relationship between process control and supervisee trust will be weaker when the manager has a long-term rather than a short-term orientation.

On the other hand, the use of output control may be more critical in enhancing supervisee trust under long-term orientation. A long-term orientation allows time for the salesperson to master the job and to produce the expected outcomes. Although the use of output control may shift performance risk to the salesperson, a long-term orientation implies a caring and considerate supervisory perspective that mitigates the perceived lack of concern and support implied in the use of output control. In contrast, output control combined with a short-term orientation may be perceived by the salesperson as reflecting undue pressure to produce outcomes, which could be construed as inconsiderate supervisor behavior. Hence,

H2b: The negative relationship between output control and supervisee trust will be weaker when the sales manager has a long-term rather than a short-term orientation.

Participative supervision reflects the degree to which the sales manager allows the salespeople to participate in and have influence on decisions regarding the selling of the new product (Ramaswami, 1996). Participative supervision style enhances the confidence of the salespeople as their views are taken into account in decision making. Supervisee trust is strengthened because the salespeople feel they are being treated as legitimate and respected professionals (Korgaard, Schweiger, and Sapienza, 1995), and thus they are less likely to engage in dysfunctional behavior. For example, Tyler and Degoey (1996) found that the level of trust between the supervisor and the subordinates increases when the subordinates share power in decision making.

When the salespeople participate in decision making, they have greater influence over decisions that affect them in the selling process and act to protect their own interests (Whitener et al., 1998). In agency terms, such influence by the salespeople reduces their perceived risk associated with the dyadic relationship with the manager. This benefit, coupled with the fact that under process control the manager assumes a substantial amount of risk, may lead to opportunistic behavior by the salespeople, which reciprocally results in poorer relations with the manager. Also, since the salespeople are involved in decision making, the manager's high levels of direction of and intervention in the selling activities via process control may send a negative signal of lack of belief and trust in the competence of the salespeople to perform their duties without close control of their selling behaviors. Hence,

H3a: The positive relationship between process control and supervisee trust will be weaker when the degree of participative supervision is high rather than low.

In contrast, the present study posits that the use of output measures to evaluate and to compensate the salespeople becomes effective in developing supervisee trust in the manager when salespeople have greater participation in decision making. The logic is that having participated in the design of the output measures salespeople are more likely to accept and to commit to the performance risks involved (Das and Teng, 1998). Therefore, the impact of the perceived negatives regarding managerial lack of support and care inherent in output control on supervisee trust will be buffered when the manager has a stronger participative supervision style. Hence,

H3b: The negative relationship between output control and supervisee trust will be weaker when the degree of participative supervision is high rather than low.

Training intensity refers to the extent to which the salespeople receive substantial training before they assume responsibility for selling the new product (cf. Ouchi, 1979; Snell, 1992). Training in a firm aims to build salesperson loyalty, to increase motivation, and to reflect management goals. Anderson and Robertson (1995) found that as a form of specific investment, training increases the employee's dependence on the firm by increasing their perception that the firm is a uniquely beneficial employer. When task training is higher, it demonstrates that the salespeople are more skillful and competent in completing the task.

To the extent that the salespeople are intensively trained, the use of process control becomes less critical for building supervisee trust. By using process control, the manager typically requires the salespeople to follow specific procedures and activities to achieve results. Training enhances the knowledge, competence, and confidence of the salespeople in performing these tasks in selling the new product. Under this situation, salespeople may prefer to be left alone to achieve results in their own ways rather than to closely follow rigid procedures and behavioral activities. Consequently, a highly trained salesperson may perceive the use of process control as stifling autonomy and an undue interference in the performance of the job and thus an untrustworthy managerial behavior (Whitener et al., 1998). When the salespeople perceive a manager's untrustworthy behavior, they will lower their trust in the manager. Thus, this study posits that

H4a: The positive relationship between process control and supervisee trust will be weaker when the level of training intensity is high rather than low.

In contrast, it is expected that when training intensity is higher, the use of output control will more likely increase salespeople's trust in the manager. The logic is that output control allows salespeople discretion in the means of performance achievement. Hence, when salespeople are well trained, output control would be perceived as an expression of confidence in the salespeople's ability and competence to perform the sales task without close monitoring of their behavior by the sales manager. Further, the perceived performance risk from output control is reduced with effective training because of the increased competence of the salespeople in achieving results. Partial support for this argument is provided by the finding by Hirst (1983) suggesting that output control reduces job stress when the task is well known. Hence,

H4b: The negative relationship between output control and supervisee trust will be weaker when the level of training intensity is high rather than low.

Environmental Factor

Regarding the environmental factor, the present study focuses on *market volatility*, which refers to the degree to which the market is unstable and changes rapidly (Bello and Gilliland, 1997). Market volatility creates adaptation problems for the parties involved in the dyadic exchange relationship (Rich, 1997). Rapid changes and instability in the market reduce both the salesperson's and the manager's ability to predict and to evaluate sales outcomes. In a highly volatile market environment, salespeople are at high risk in that they can be penalized for results largely beyond their own control. To the extent that salespeople perceive that the risks involved in selling new products depend on market volatility, this environmental factor may affect the control–trust relationship.

In highly volatile markets in which the cost of product failure is very high, the use of process control may increase the salespeople's trust in the manager. Both the sales manager and salespeople are trying to minimize their own performance risk in volatile markets. Hence, by using process controls the sales manager signals to salespeople that the firm is shouldering a greater proportion of the performance risks in selling the products. This logic is consistent with transaction cost theory, which suggests trust building is a calculative process involving one party calculating the costs of rewards of another party cooperating in the relationship (Williamson, 1993). Hence, high process control in volatile market conditions increases the sales manager's benevolence in the new product-selling process in the eyes of the salespeople.

H5a: The positive relationship between process control and supervisee trust will be stronger when market volatility is perceived as high rather than low.

From a social exchange perspective (Doney and Cannon, 1997), salespeople may perceive a lack of care from the organization and hence greater potential for opportunism by the supervisor, which may attenuate their trust in the manager. This is likely to occur under conditions of high market volatility where clear and reliable outcome measures are difficult and costly to develop and to implement. Thus, if

output control is used in a highly volatile market, salespeople may perceive a higher level of pressure to achieve results under conditions over which they have no control. This reduces their trust in the manager. Hence,

H5b: The negative relationship between output control and supervisee trust will be stronger when market volatility is perceived as high rather than low.

Product Factor

In this study, it is argued that *new product complexity* may affect the control–trust relationship in new product selling. New product complexity refers to the extent to which the new product being sold is technically sophisticated (Bello and Gilliland, 1997). Complex new products will depress sales in the short term because salespeople may not understand the new products, and thus they may have a difficult time convincing customers who might be quite satisfied with current product offerings to switch to the new products (Christensen, 1997).

Ouchi (1979) proposed that organizations should be able to minimize the negative effects on employees by using controls that fit the nature of the tasks. Similarly, Jaworski (1988) suggested that task characteristics have a role in moderating the effects of the control mechanisms in use. When the new product is complex, firms need greater control over the planning, monitoring, and scheduling of the development and selling of the product (Benghozi, 1990). Salespeople may need more management direction and monitoring of their selling activities as well as shouldering of a greater share of performance risk by the firm. In this situation, the use of process control shows the manager's consideration and sensitivity for the salespeople's needs and interests, which thus increases their trust in the manager. Thus,

H6a: The positive relationship between process control and supervisee trust will be stronger when the level of product complexity is high rather than low.

In contrast, when the product is very complex, it is almost impossible to specify output measures. An output control would be counterproductive because it would reflect greater performance risk being shifted to the salespeople (Hopwood, 1972; Jaworski, 1988), suggesting a lack of care from the sales manager. When output control is used, salespeople may shirk their responsibilities by behaving opportunistically

(e.g., selling to inappropriate users), which may jeopardize the reputation of the firm and the manager. Thus, it is proposed here that when product complexity is higher, the potential negative relationship between output control and supervisee trust will be stronger.

H6b: The negative relationship between output control and supervisee trust will be stronger when the level of product complexity is high rather than low.

Methodology

Sample and Data Collection

For the study, 250 high-technology firms were randomly selected from the firm population in Beijing's high-technology experimental zone in China. Chief executive officers of these firms were contacted to introduce the study and to encourage their participation. A total of 150 firms agreed to participate in the study. Using a list of sales employees from each of these firms, three were randomly selected from each firm to interview for the study. Thus, the total sample included 450 salespersons. The data were collected through on-site interviews with a questionnaire. The questionnaire was originally designed in English. The conventional method of back-translation was used to translate the measures from English to Chinese. As a pretest, a series of 20 in-depth interviews were conducted with sales managers and salespeople to ensure the face validity of the measures in the Chinese context. During data collection, confidentiality was assured to all respondents to encourage candid responses. A certain amount of risk, ambiguity, and uncertainty must exist for trust to be operative. In the manager-salesperson context, risk and uncertainty could be primarily operative in new product selling. Hence, the key informant—the salesperson, an employee of the firm—was asked to select the most recent new product introduced to market by the firm as a referent for the study. This sample design feature is used to avoid positive bias in the selection of new products.

The study's data collection efforts yielded 170 usable questionnaires, for a response rate of 37.7 percent (170 out of 450). There were several reasons for non-response in the on-site interviews: (1) the salesperson was too busy to make a meeting appointment and to fill out the questionnaire (e.g., on a business trip);

(2) the salesperson was on leave; and (3) in 11 cases there were too many missing values in the questionnaire. To test nonresponse bias, the respondents were compared with the nonrespondents in terms of their ages and average company tenures. The information regarding nonrespondents was solicited from the human resource departments of the firms. No statistically significant differences were found between the two groups. In addition, the study involved an examination of whether any differences existed in the means of the preceding variables between early participants and later participants. The assumption of such analysis is that later respondents are more similar to the general population than are early respondents (Armstrong and Overton, 1977). Again, no statistically significant differences were found in terms of age and average company tenure between early and later respondents, an indication that nonresponse bias is not a major threat to the study.

The selected new product has been in the market for an average of 17.8 months in China. Salespeople's experience in selling a similar product was compared to the one selected for study on a five-point scale. It seems that salespeople had little experience in selling similar products (mean = 2.27), suggesting that the new product was new to the salespeople. Respondents were young, with 83 percent below 34 years of age. In terms of gender, 77 percent were male. In terms of education, 60 percent had education below university level, and 40 percent had a bachelor's degree. The average company tenure was 3.2 years, and average sales experience was 4.3 years. Finally, average number of sales calls per day was 6.3, and the average number of hours worked per week was 45, with 37.7 of these hours spent on the new product, reflecting the critical importance of the new product. On average, salespeople's fixed salary as percentage of total compensation was 64 percent.

Measurement and Validation

All multi-item variables were measured on a five-point Likert-type scale. Sum scores were calculated for each of the Likert-type scale items and were used in subsequent hypothesis testing. Given that these measures for the constructs under study are being used in the Chinese context for the first time, they were considered as exploratory. Following the recommendations of Nunnally and Bernstein (1994), item analysis and exploratory factor analysis were used to purify the

scales. This analysis had a second objective to assess the potential impact of common method variance. Factor analysis results of the measures with varimax rotation indicated an eight-factor solution on the basis of a minimum of eigenvalue of one, scree plot and interpretability of the factor solution, which explained 67.36 percent of the common variance. All items loaded on the expected constructs. These results indicate that common method variance that could result from collecting dependent and independent variables from a single respondent does not seem to be a problem based on Podsakoff and Organ's (1986) Harman's one-factor method of assessment. The measures and factor analysis results are reported in Appendix A. Once unidimensionality was established, internal consistency was calculated using Cronbach's alpha. The alphas were at an acceptable level, as reported subsequently.

Supervisee trust ($\alpha = 0.88$) was measured with five items used by McAllister (1995) reflecting the degree of relationship sharing and genuine care and concern for the employees' welfare in the relationship between the manager and the salespeople. McAllister (1995) demonstrated the scale to be unidimensional and reliable. The scales for output and process controls were adapted from Jaworski and MacInnis (1989) and were supplemented with six more items based on the current study's exploratory conversations held with the Chinese managers and salespeople. Output control $(\alpha = 0.76)$ was measured with five items reflecting the extent to which the manager monitored, evaluated, and rewarded salespeople based on performance goals achieved. Process control ($\alpha = 0.79$) was measured with six items capturing the extent to which the sales manager monitored, evaluated, and rewarded prescribed selling behaviors.

Long-term orientation ($\alpha=0.80$) was measured with two new items that reflected the manager's concern for long-term customer satisfaction and customer relations during new product selling. The advantage of asking salespeople to assess the manager's long-term orientation is that it can avoid the potential social bias if it is assessed by managers themselves. Participative supervision ($\alpha=0.86$) was captured with four items adapted from Ramaswami (1996), reflecting the degree to which the salesperson has influence over the decisions, opinions, and thinking of the sales manager in selling the new product. Training intensity ($\alpha=0.75$) was measured using four scale items adapted from Snell (1992) tapping the amount, length, and effectiveness of training the salesperson

received for selling the new product. Market volatility ($\alpha = 0.873$) was measured with four items reflecting the degree to which the salesperson perceived the market as unpredictable and uncertain, and product complexity ($\alpha = 0.81$) was measured using three items describing the degree of complexity and technical sophistication of the product. Both of these scales were adapted from Bello and Gilliland (1997). Finally, the study controlled for firm size, sales experience, and respondent gender and age in the analysis.

Analysis and Results

The descriptive statistics are reported in Table 1. Hierarchical regression analysis was performed to test the hypotheses so that the order in which the predictor variables were entered into the equation could be specified. Hierarchical regression allows causal priority to be defined, spurious relationships to be removed, and incremental validity to be determined (Cohen and Cohen, 1983). The study controlled for multicollinearity resulting from the interaction items by using the deviation score approach, following Aiken and West (1991). To do this, the centered data were used, transforming the data into deviation score form with means equal to zero. An examination of the tolerance scores, variance inflation factors (VIFs), and conditional indices indicated that there were no instances of problematic multicollinearity among the variables or interaction terms. For example, all VIFs were well below the cutoff of 10 (Neter, Wasserman, and Kutner, 1989).

The results of hierarchical regression analyses are reported in Table 2. Regarding the main effects, process control has a significantly positive relationship with supervisee trust ($\beta = 0.29$; p < .001), thus supporting H1a. The relationship between output control and supervisee trust is not significant. Thus, H1b is not supported.

Regarding the contingency effects, H2a, stating that the positive impact of process control on supervisee trust is weaker when the manger has a stronger long-term orientation, is supported because the cross-product of process control and long-term orientation has a significantly negative relationship with trust ($\beta = -0.27$; p < .001). The interaction between process control and participative supervision is significant and negatively related to supervisee trust ($\beta = -0.17$; p < .05), which supports H3a. The interaction between process control and training intensity is significantly

Table 1. Correlation Matrix

Variables	TR	PC	OC	LO	TI	PS	MV	PX	FS	SE	GD	HR MS
Supervisee Trust (TR)												
Process Control (PC)	0.51**											
Output Control (OC)	0.32**	0.45**										
Long-Term Orientation (LO)	0.48**	0.39**	0.32**									
Training Intensity (TI)	0.38**	0.37**	0.27**	0.40**								
Participative Supervision (PS)	0.58**	0.47**	0.25**	0.46**	0.31**							
Market Volatility (MV)	0.04	-0.01	-0.01	-0.02	-0.06	0.11						
Product Complexity (PX)	0.28**	0.25**	0.24**	0.25**	0.27**	0.27**	0.13					
Firm Size (FS)	-0.06	-0.09	-0.04	-0.02	0.08	-0.05	-0.04	-0.00				
Sales Experience (SE)	0.15^{*}	0.27**	0.27**	0.11	0.08	0.14^{*}	-0.05	-0.03	0.01			
Gender (GD)	-0.08	-0.03	-0.04	-0.01	-0.05	-0.05	0.01	-0.11	-0.06	-0.10		
Working Hours per Week (HR)	0.06	0.12	0.06	0.05	0.08	0.03	-0.05	0.10	-0.02	0.10	-0.14	
Type of Market Served (MS)	0.08	0.05	0.08	0.08	0.11	0.02	-0.02	-0.07	0.12	-0.05	0.05	0.07
Mean	18.46	24.44	20.86	7.85	10.63	14.20	12.29	11.01	789.90	4.29		45.22
Standard Deviation	4.60	5.64	3.35	1.79	2.85	3.56	3.52	2.74	45.85	3.29		11.97
Range	6–25	8–35	5–25	2–10	3–15	4–20	4–20	3–15	36–2115	1–24		10–60

^{*}p<.01.

positively related to supervisee trust ($\beta = 0.22$; p < .01). Thus, H4a positing a negative moderating impact for training intensity is refuted. The interaction between process control and market volatility is significantly and positively related to supervisee trust ($\beta = 0.14$; p < .05), in support of H5a. Finally, the interaction between process control and product complexity is positive but not statistically significant at the level of p < .05. Thus, H6a is not supported.

H2b is supported given that the interaction between output control and long-term orientation is significantly positively related to supervisee trust ($\beta = 0.21$; p < .05). The interaction between output control and training intensity is significant and negatively related to supervisee trust ($\beta = -0.18$; p < .05), refuting H4b. However, H3b, H5b, and H6b were not supported by the data.

Discussion

This is the first study that empirically investigates the relationship between formal control mechanisms and supervisee trust in new product selling. A contingent theoretical model is presented about the control—trust relationship by including supervisory, environmental, and product factors as moderators. Although the sample is limited to a group of young and inexperienced Chinese salespeople, the study's results provide some support of the model.

The study's findings indicate that the use of process control rather than output control is more likely to lead the young and inexperienced Chinese salespeople to have trust in their manager when selling new products. A possible explanation may be that in a process control situation the salespeople may perceive a lower level of risk and uncertainty in new product selling because they perceive such control as more caring and nurturing leadership behavior than output control. This is especially likely to be the case because the respondents in the study's sample were young and relatively inexperienced, with a relatively low average educational level.

The study's findings also provide strong support for a contingent view of the formal control-trust relationship (Das and Teng, 1998; Jaworski, 1988). The results show that the positive impact of process control on supervisee trust is weakened when the manager has a long-term orientation and when the manager adopts a participative supervision style. Further, participative supervision presupposes significant competence on the part of salespeople to engage in informed deliberations and decision making with the supervisor. Hence, a plausible reason for this is that both long-term orientation and participative supervision may make the performance limitations and inadequacies of young and inexperienced salespeople more apparent to sales managers. Given the high power distance and uncertainty avoidance tendencies in the Chinese culture salespeople there may likely prefer limited participation in decision-making as high participation in decision making implies a share of the potential consequences and risks associated with decisions made. Similarly, given that sales

^{***}p<.001.

Table 2. The Moderating Effects of Process and Output Control Mechanisms on Supervisee Trust^a

	Мо	del 1	Mod	del 2	Mod	del 3
Independent Variables	β	t-Value	β	t-Value	β	t-Value
Control Variables Firm Size Sales Experience Respondent Gender Working Hours per Week Type of Market Served	- 0.09 0.08 - 0.09 0.09 0.12	- 1.11 1.03 - 1.19 1.08 1.45	- 0.04 - 0.01 - 0.06 0.02 0.07	- 0.64 - 0.19 - 0.91 0.33 1.08	- 0.03 - 0.04 - 0.04 0.04 0.07	- 0.52 - 0.62 - 0.56 0.61 1.17
Control Mechanisms Process Control Output Control			. 29 - 0.02	3.59*** - 0.33	.30 0.02	3.89*** 0.29
Contingency Factors Long-Term Orientation (LO) Participative Supervision (PS) Training Intensity (TI) Market Volatility (MV) Product Complexity (PC)			0.13 0.34 0.11 0.04 0.05	1.67 4.47*** 1.47 0.61 0.78	0.05 0.34 0.17 0.00 - 0.00	0.66 4.51*** 2.28* 0.06 - 0.04
Moderating Effect Process Control × LO Process Control × PS Process Control × TI Process Control × MV Process Control × PC Output Control × LO Output Control × PS Output Control × TI Output Control × MV Output Control × MV					- 0.27 - 0.17 0.22 0.14 0.11 0.21 0.00 - 0.18 - 0.12 - 0.01	- 2.96*** - 1.89* 2.82** 1.81* 1.54 2.29* 0.00 - 2.28* - 1.52 - 0.12
R ² Adjusted R ² F-Value Change in R ² F-Change d.f.	0.05 0.01 1.41 5/145		0.48 0.44 10.76*** 0.43 16.67*** 12/138		0.57 0.50 7.82*** 0.09 2.70*** 22/128	

^a Significance levels shown are one-tailed for hypothesis testing and two-tailed for controls.

managers with a long-term orientation place greater emphasis on allowing time for salespeople to achieve performance outcomes, it actually implies increased responsibility of the salespeople for performance output and thus performance risk. These connotations of process control under conditions of long-term orientation and high participative supervision appear to mitigate the perceived care and nurture benefits of process control, thereby hindering supervisee trust.

The positive relationship between process control and supervisee trust in the manager is strengthened when the market environment is highly volatile and when salespeople have undergone intensive training for selling the new product. The former finding suggests that salespeople tend to appreciate even more the care and support of the sales manager implied in

the use of process control under conditions of high market volatility. The latter result is contrary to this study's expectation. Two plausible reasons can be found for these contrary findings. First, it could be that because the focus of training for a new product selling is largely on the learning of appropriate behaviors and the use of selling procedures and methods, process control appears a fairer control mechanism than output control. Such control may increase the salesperson's perception of procedural justice in a process that guarantees that rewards adequately reflect their behavioral inputs into the selling of the new product (cf. Lind and Tyler, 1988). Second, it seems that salespeople with intensive training can better predict how the manager expects them to behave and can perform those behavioral activities in

^{*} p < .05.

^{***}p<.01. ***p<.001.

the selling process. Accordingly, their confidence in their ability to achieve expected behavioral performance targets should increase (Whitener et al., 1998). Thus, when process control is used, such predictability reinforces the level of trust in the manager.

Although the main effect of output control is not significant, the current study's results suggest that output control will have a positive relationship with supervisee trust when the sales manager is long-term oriented. The logic is that output performance may be influenced by a myriad of factors such as market competition, product quality, and firm strategy that may all go beyond the salespeople's direct control. Thus, the use of output control that takes no consideration of effective performance of selling procedures and behaviors but rather shifts substantial performance risk to the salespeople is less likely to increase their trust in the manager. However, when the sales manager combines such a control with a long-term orientation, the salespeople may perceive less performance risk because they have time to learn from experience in the field to achieve the required performance output. In other words, a combined output control and long-term orientation portends some inherent recognition that salespeople need time to achieve performance outcomes. To young and inexperience salespeople in a high uncertainty avoidance culture, this perhaps suggests a measure of benevolence on the part of the sales manager.

Finally, output control appears to hinder supervisee trust when training intensity is high. A plausible explanation could be that a new product that requires intensive training is more likely to be complex (the correlation coefficient between training intensity and product complexity is 0.27, p < .001, see Table 1). As such, even where salespeople are trained for the selling, their perceived performance risk is still high. Thus, the use of output control is less effective in building the salespeople's trust in the manager because they perceive substantial lack of care and support with output control under such circumstances.

In summary, this study's findings indicate that process control and output control play differential roles in building supervisee trust under different conditions. Although prior research has argued that control mechanisms may have some relationships with trust (Cummings and Bromiley, 1996), the ways in which different control mechanisms affect trust are not clear. The study presented here disaggregates control mechanisms and provides unique empirical findings because they represent the first evidence in the

management and marketing literatures on the contingent role played by supervisory and environmental factors in the linkage between process and output controls and supervisee trust. These findings provide some support for McCauley and Kuhnert's (1992, p. 279) argument that "trust between employees and management is not interpersonal in nature, but is seen as deriving from the roles, rules, and structured relations of the organization." More importantly, they provide the first implications for sales managers who oversee new product selling in contexts where the salespeople may be young and inexperienced.

Managerial Implications

The results of this study suggest that practitioners may benefit from gaining a better understanding of the control—trust relationship in new product selling when the salespeople are young and inexperienced. There are several pointed implications.

Process and output control mechanisms have differential implications in developing supervisee trust. Our results inform sales managers that process control has greater potential than output control in building salesperson's trust in them in new product selling. Thus, if the sales manager's concern is to increase supervisee trust, as a precursor to enhancing the commitment and support of the salesperson in new product selling in a high power distance and uncertainty avoidance context, he or she must err toward the use of process control. This insight runs directly counter to the recommendation of Hultink and Atuahene-Gima (2000) in their study of the sales force adoption (i.e., effort and commitment to selling new products) in the Netherlands. Their results suggested the need for managers to err toward the use of output control mechanisms given that Dutch salespeople, perhaps relatively more educated and experienced, appear to cherish the challenge, flexibility, risks, and autonomy inherent in output control. In brief, it appears that sales managers must be sensitive not only to the cultural milieu but also to the experience of salespeople in deploying process and output controls during new product selling.

Consider the potential implications of your supervisory behaviors on the efficacy of process and output controls. The current study's contingency results provide several intriguing insights for managers. First, managers are advised to think carefully about

supervisor behaviors that may reinforce the inherent perceived benefits of process and output controls before deploying each. For example, it appears that to enhance the potential positive effects of process control on supervisee trust managers may need to deploy it along with significant training of salespeople and when the salespeople perceive the market conditions as highly volatile. These conditions reinforce the perceived care and nurturing climate that young and inexperienced salespeople with great need to reduce their performance risks tend to associate with process control. Interestingly, when young and inexperienced salespeople are well trained for new product selling, the use of output control may actually hinder their supervisee trust. This suggests that by achieving the needed skills and confidence in selling the new product through intensive training, these salespeople may actually prefer the hands-off approach to managing the selling process.

Although having a long-term orientation and participative management style may appear appealing to many salespeople, they appear to expose the performance inadequacies of young and inexperienced salespeople. Thus, when used in conjunction with a process control which such salespeople perceive as showing care and support, it may actually intensify their perceived performance risks. In other words, the message for sales managers is that for a sample of salespeople under study here, process control may be inconsistent with long-term orientation and participative supervision. In contrast, output control may be the better option for long-term-oriented sales managers.

Managing young and inexperienced salespeople may demand differential programs. Although the foregoing implications relate to young and inexperienced salespeople in China, the implication for managing such salespeople in other national contexts cannot be denied. It is argued here that like their counterparts in China, young and inexperienced salespeople in more individualistic and uncertainty accepting societies may have the same natural tendencies for care, support, and nurturing supervision from their sales managers. Accepting this argument suggests that sales managers in such national contexts may need to segment their young and inexperienced salespeople for special and differential attention with the use of sales control mechanisms during new product selling.

Limitations and Future Research

Any study findings must be taken with certain caveats. First, note that this study's theoretical model is built on theories developed from Western market economies. By applying this model to China, evidence was found to support the model. However, rather than saying that this study has extended the Western control and trust literature to the Chinese context, research of this kind would enrich our understanding of the nature of control-trust linkage across different institutional contexts. As discussed earlier, this study's results can be biased by the sample, in which the respondents were young and relatively inexperienced and had a relatively low average educational level. The results could be different in other cultural context such as the United States, where high-technology firms will only use salespeople with bachelor's degrees, at a minimum, and employees with technical training (for this point, the authors are indebted to an anonymous reviewer). However, considering the nature of China's market-oriented economic transition, salespeople have a relatively low social status. Indeed, in the traditional planning economy, salespeople were even viewed as hawkers. This study's field observations in China also suggest that salespeople overall are young and have low educational levels, particularly in new ventures as used here. Thus, this study's results may be idiosyncratic to the Chinese context and should be interpreted from the standpoint of the lack of education and experience of the salespeople in the sample. In short, caution should be used in generalizing the findings of this study, as further replications and extensions to other contexts would be necessary.

The cross-sectional design limits the ability to rule out alternative causal inferences. For example, in this study it was predicted that control mechanisms may affect supervisee trust, but it is also conceivable that a reverse sequence of events is operating. However, typically, most studies have conceptualized control as a determinant rather than a consequence of trust. Also, as noted earlier, only one dimension of trust was examined, and the reliability dimension of trust was not included (Doney and Cannon, 1997; Ganesan, 1994). An interesting extension of the conceptual model would include different dimensions of trust. Further, although control can be exerted on an immediate basis, trust needs to be developed over time. Thus, a longitudinal design should be used in the future to examine how control mechanisms may lead to trust over time.

Other supervisory factors could have been included in the study as moderators. For example, a sales manager's competence in decision making may affect the impact of control mechanisms on trust. It could be that salespeople may become more lenient in their judgments about the sales manager when the sales manager has proven his or her competence. In addition, this study focuses only on supervisee trust (i.e., the salesperson's trust in the manager). Given the reciprocal nature of trust building, however, future investigations should examine how supervisee trust is related to supervisory trust (i.e., the manager's trust in the salespeople) in new product selling.

Another limitation is that during the data collection the study did not control for sample heterogeneity. It could be that some salespeople prefer process control whereas others prefer outcome control. If this is the case, the current study's results do not capture the fine details of individual salespersons' control preferences. Also, organizational support may influence the salespeople's perception of the controls. These issues should be addressed in future research.

Finally, the use of perceptual self-report measures raises a legitimate concern that the relationships between the dependent and independent variables could be attributable to common method variance. As noted earlier, this examination with the Harman's one-factor test (Podsakoff and Organ, 1986) indicates that common method variance may not be a serious problem in the data. Considering that all but two of the study's hypotheses were based on interaction effects, it is unlikely that common method bias would have produced the results reported. In other words, it is unlikely that respondents would have an interaction-based theory in their minds that could systematically bias their responses to produce these results. In support of this contention, scholars argue that that there is no theoretical reason to expect an interaction from common method variance. For example, Evans (1985) and Aiken and West (1991) concluded that correlated error from the use of similar methods to collect measures on criterion and predictor variables cannot create spurious interactions.

In conclusion, the relationship between formal controls and trust is an extremely complex and dynamic phenomenon. This study attempted to contribute to a contingency understanding of the relationship in new product selling and to take an initial step toward more programmatic research. Expanding the understanding of the formal control—trust linkage will lead to greater efficiency in management in general and successful product innovation in particular.

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Table A. Factor Analysis Results of Measures^a

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Constructs and Measurement Items	F1	F2	F3	F4	F5	F6	F7	F8
Factor 1. Supervisee Trust My supervisor and have a sharing relationship; we freely share our ideas, feelings,	0.77	0.26	0.23	-0.03	0.01	0.14	0.12	0.05
and hopes about the work we do. I can freely talk to him about difficulties I am having at work and know that he/she worth to listen	0.76	0.11	0.14	0.17	-0.03	0.09	0.17	0.09
wants to fisher. If shared my problems with my supervisor, I know he/she would respond	0.73	0.36	0.15	-0.09	0.07	0.02	0.08	0.08
Verboth will feel a sense of loss if we could no longer work together. I would have to say my supervisor and I have made considerable emotional	0.72 0.71	0.07	0.38	0.17	- 0.09 0.06	0.04	0.12	0.23
investments in our working relationship. Eigenvalue = 3.58; Percent of variance explained = 11.21	ent of varian	ce explained	= 11.21					
Factor 2. Process Control My pay increases and other tangible rewards depend on how well I follow sales	0.21	0.78	0.08	0.16	-0.05	0.15	- 0.01	0.09
procedures. you immediate supervisor evaluates procedures we use to accomplish the task of	0.10	0.74	0.23	0.16	- 0.01	-0.03	0.05	0.10
Sections. My immediate supervisor monitors the extent to which I follow established	0.18	69.0	0.15	0.04	0.03	- 0.01	0.12	0.04
procedures. My increases and other tangible rewards depend on my knowledge of selling	0.17	89.0	0.02	0.14	-0.14	0.13	0.09	0.07
procedures. My immediate supervisor modifies the procedures if desired results are not obtained	0.34	0.47	0.23	0.25	0.02	- 0.08	-0.16	0.07
Primary weight in evaluating salespeople's performance is placed on sales behavior. -0.02 Salespeople are accountable for their actions in selling regardless of the results they achieve. ^b I receive feedback on how I accomplish my goals. ^b	-0.02 chieve. ^b	0.45	0.08	0.39	0.02	0.07	0.19	0.08
Eigenvalue = 3.34 ; Percent of variance explained = 10.45	ent of varian	ce explained	= 10.45					
Factor 3. Participative Supervision I have influence on the thinking of my supervisor. I have influence my supervisor's decision making.	0.13	0.20	0.83	0.13	0.02	0.07	0.08	0.21 - 0.03
I have influence on what goes on in my job.	0.22	-0.01	0.74	0.01	90.0	0.21	0.12	0.14
My supervisor gives weight to my opinions. Eigenvalue = 3.06 ; Percent of variance explained	0.37 cent of variar	0.23 ice explained	0.74 1 = 9.57	0.12	0.05	0.00	0.03	0.20
Factor 4. Output Control	o o	ć	90	ì	2	000	t o	9
My pay increases and omer tangiole rewards depend on now my periormance compares with goals.	0.00	77.0	0.03	00	0.04	0.00	0.0	0.10
Performance evaluations of salespeople place primary weight on results. My pay increases and other tangible rewards depend on the degree to which I	0.23 - 0.06	$-0.15 \\ 0.25$	0.07	0.72 0.70	0.01	-0.03 0.04	0.08	$-0.25 \\ 0.06$
achieve specific goals set.	-	-	9			0	6	,
If my performance goals are not met I will be asked to explain why. My immediate supervisor monitors the extent to which I achieve my performance goals.	0.19	0.20	0.10	0.57	-0.13 -0.13	0.09	0.03 - 0.06	0.04
Freceive feedback from my immediate supervisor on the extent to which I have achieved my goals. ^b Specific performance goals are established for my job. ^b	wed my goals	٩.						
Figure 2 90. Percent of variance explained = 9.08	cent of variar	Serial aine	80 6 = 1					

Eigenvalue = 2.90; Percent of variance explained = 9.08

Table A. (Cont'd.)

	able A. (Cont a.)	Ć:						
Constructs and Measurement Items	F1	F2	F3	F4	F5	F6	F7	F8
Factor 5. Market Volatility Market environment for the new product is								
Certain-uncertain	0.04	0.00	0.01	-0.08	0.77	0.13	-0.16	.015
Stable-unstable	0.05	0.07	-0.05	0.02	0.75	-0.03	-0.04	-0.15
Predictable—unpredictable	-0.03	-0.23	0.05	0.02	0.74	0.02	0.03	-0.04
Changes slowly-changes rapidly	-0.03	-0.05	0.09	0.01	0.73	0.03	0.04	-0.00
Eigenvalue = 2.37; Percent of variance explained =	cent of varia	nce explaine	d = 7.41					
Factor 6. Product Complexity								
Technical intensity	0.07	90.0	0.17	0.09	0.04	98.0	0.11	-0.07
Product sophistication	0.11	0.07	0.12	0.03	0.12	0.83	0.01	0.03
Engineering content	0.12	0.04	0.01	0.17	-0.09	0.74	0.17	0.14
Eigenvalue = 2.29 ; Percent of variance explained = 7.16	cent of varia	nce explaine	d = 7.16					
Factor 7. Training Intensity								
I spend a lot of time in training for the new product.	0.14	0.10	90.0	0.07	-0.03	0.11	98.0	-0.07
I received substantial training before selling the new product.	0.19	0.03	80.0	0.09	-0.04	0.12	0.82	0.20
Our training program for the new product is first class.	0.11	0.30	0.20	0.12	-0.11	0.13	0.56	0.42
Our training program is a joke.		,	•					
Eigenvalue = 2.02 ; Percent of variance explained = 6.32	cent of varia	nce explaine	d = 6.32					
Factor 8. Long-Term Orientation My supervisor is more concerned with long-term customer satisfaction than short-	0.25	0.13	0.19	0 11	-0.04	0.07	60 0	0.81
term performance.				•	-			
My supervisor is more concerned with long-term sales rather than immediate sales.	0.27	0.15	0.30	0.15	-0.01	0.09	0.14	0.74
My supervisor made it clear that building long-term relationships with customers was important. ^a	s important.ª							
Eigenvalue = 1.96 ; Percent of variance explained = 6.13	cent of varia	nce explaine	d = 6.13					

^aSignificant factor loadings on each construct are in bold.

^bItems were deleted because of high cross-loadings.

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