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## **A Measurement Model of the Dimensions and Types of Informal Organizational Control: An Empirical Test in a B2B Sales Context**

Stacey L. Malek  
*Erasmus University*

Shikhar Sarin  
*Boise State University*

Bernard J. Jaworski  
*Claremont Graduate University*

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## Full length article

# A measurement model of the dimensions and types of informal organizational control: An empirical test in a B2B sales context

Stacey L. Malek<sup>a,\*</sup>, Shikhar Sarin<sup>b</sup>, Bernard J. Jaworski<sup>c</sup><sup>a</sup>Erasmus School of Economics, Erasmus University, Rotterdam, 3062 PA, the Netherlands<sup>b</sup>College of Business Economics, Boise State University, Boise, ID 83725, USA<sup>c</sup>Peter F. Drucker and Masatoshi Ito Graduate School of Management, Claremont Graduate University, Claremont, CA 91711, USA

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## ABSTRACT

Sales organizations are replete with informal forms of organizational control. Despite this, marketing and management literature has primarily focused on the theoretical development and empirical testing of formal, managerial forms of control. One reason research on informal controls has lagged is a lack of comprehensive measurement scales. Specifically, existing measures of the three principal types of informal controls—self, social, and cultural—do not capture the full dimensionality of the constructs (i.e., information, reward, and punishment aspects of informal controls). The authors take steps to remedy this situation by (1) outlining nine distinct dimensional types of informal control based on organizational control theory, (2) developing scales to measure the nine informal control constructs in a qualitative field study with 28 B2B salespeople, and (3) empirically validating the scales by establishing their psychometric properties and nomological validity using data collected from a diverse panel of 750 B2B salespeople.

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## 1. Introduction

Companies invest a significant portion of their marketing budget in the recruitment, training, and development of sales forces (Atefi, Ahearne, Maxham, Donovan, & Carlson, 2018; Steenburgh & Ahearne, 2012). This investment is worthwhile, as a well-functioning sales force is crucial to implementing an effective marketing strategy (Kumar, Sunder, & Leone, 2014). However, sales force management is complex (Chung, Kim, & Park, 2020), and despite best efforts, costly salesperson turnover continues to plague sales organizations (Sunder, Kumar, Goreczny, & Maurer, 2017).

To address these challenges, sales scholars have focused on the efficacy of organizational control systems in directing, monitoring, and motivating a sales force (e.g., Katsikeas, Auh, Spyropoulou, & Menguc, 2018). Organizational control denotes formal and informal attempts by internal firm stakeholders to align salespeople with organizational objectives (Anderson & Oliver, 1987; Jaworski, 1988). Formal controls are written and codified measures, initiated by management (Jaworski, 1988; Jaworski & MacInnis, 1989; Jaworski, Stathakopoulos, & Krishnan, 1993). For example, formal control might include the provision and enforcement (by management) of specific “scripts” for salespeople to use during customer interactions. Informal controls, by contrast, are unwritten and often worker-initiated attempts to influence salespeople (Jaworski, 1988; Jaworski & MacInnis, 1989; Jaworski et al., 1993). For example, informal control might include the development and reinforcement (by workers) of the belief that salespeople should always put their customers first. As such, informal controls represent all the ways that salespeople are compelled to align with personal and collective values, norms, and beliefs within an organization.

\* Corresponding author.

E-mail address: [malek@ese.eur.nl](mailto:malek@ese.eur.nl) (S.L. Malek).

Extant empirical research on informal controls suggests that they play an important role in reducing role stress (e.g., Jaworski et al., 1993; Lusch & Jaworski, 1991) and dysfunctional behavior (e.g., Jaworski & MacInnis, 1989) and in increasing job satisfaction (e.g., Jaworski et al., 1993) and performance (e.g., Guenzi, Baldauf, & Panagopoulos, 2014; Panagopoulos, Johnson, & Mothersbaugh, 2015). However, fundamental concerns about the comprehensiveness of informal control studies and measures persist (Malek, Sarin, & Jaworski, 2018). Most critically, prevalent informal control scales do not adequately tap the theoretical domain of the underlying constructs. Consequently, our understanding of how informal controls influence relevant salesperson consequences like job satisfaction and performance is obscure. This precludes a complete view of how the use of informal controls can actually benefit sales organizations.

Although informal controls research to date is foundational and informative, a complete view of the effects of informal controls on salespeople is lacking because extant research (1) does not typically investigate all types of informal controls in one comprehensive framework even though informal controls operate simultaneously, (2) rarely samples salespeople (vs. sales and marketing managers) from multiple organizations and industries in support of generalizability, (3) has focused on aggregated informal control measures (e.g., social and cultural together) despite theoretical distinction between constructs and, most critically, (4) employs measures of informal controls that do not capture the full theoretical range and domain of the constructs. Several scholars suggest that informal controls have received less attention than formal controls because they are difficult to measure and that more robust measures are required to advance our knowledge of this important issue (Kirsch, Ko, & Haney, 2010; Malek et al., 2018; Panagopoulos & Avlonitis, 2008). Following Challagalla and Shervani (1996, 1997), we acknowledge that to fully understand the effects of any form of control, control content (i.e., information on expectations) and control use (i.e., reinforcement of expectations in the form of rewards and punishments) must be accounted for (see also Malek et al., 2018). However, the established measures of informal controls do not account for situations in which they are used as rewards and punishments.

The objective of this research is to apply the three underlying dimensions of control (i.e., information, rewards, and punishments) to the three types of informal control outlined in the literature (i.e., self, social, and cultural). We draw on two field studies with business-to-business (B2B) salespeople to develop and test a measurement model of informal controls that accounts for both their content and their use. In doing so, this research makes three key contributions. First, we delineate clear and well-designed measures of key informal control constructs, which is essential to the advancement of knowledge and theory building on organizational control. Second, our study shows how a more comprehensive and nuanced model of informal controls (proposed herein) can shed additional light on existing informal controls research, lead to the development of new insights, and enable testing of new research questions. Third, our research contributes to managers' understanding of the positive and negative effects of informal controls on salesperson job satisfaction and performance and clarifies how they might view and influence the informal sales environment.

## 2. Organizational control theory

The application of theory to sales management control systems (SMCSs) is grounded in the literature on organizational control. Organizational control theory outlines a cybernetic (i.e., regulatory system) process of control that also accounts for the organizational context by synthesizing perspectives on organizational sociology, administration, and/or psychology (Flamholtz, Das, & Tsui, 1985). The psychological approach (which characterizes the sales/marketing literature) is chiefly interested in the behavior of individuals in relation to group or organizational objectives (Flamholtz et al., 1985; see also Jaworski & MacInnis, 1989; Jaworski et al., 1993; Oliver & Anderson, 1994; 1995).

From the cybernetic side, organizational control systems comprise four main elements: planning, measurement, feedback, and evaluation (Flamholtz, 1996; Flamholtz et al., 1985). *Planning* involves the setting of goals and standards. *Measurement* directs attention to the measured aspects of goals (i.e., monitoring), which results in corrective or evaluative *feedback*. These activities make up the “information” required to control behavior (Challagalla & Shervani, 1996; Merchant, 1985). Finally, *evaluation* serves to stimulate motivation (in advance) and to reinforce or modify (i.e., control) observed behaviors (through contingent rewards and/or punishments; Challagalla & Shervani, 1996; Merchant, 1985). The most basic function of information and rewards is to motivate desired behaviors, while punishments serve to demotivate undesired behaviors (Bandura, 1977).

We begin by drawing on seminal literature on organizational control to define the main forms and types of controls operating in a SMCS. Then, we synthesize extant SMCS literature on informal controls to illustrate deficiencies in current knowledge. Next, we identify three distinct dimensions of control (i.e., information, rewards, and punishments), which have thus far only been applied to formal controls. Finally, we elaborate on the three types of informal controls (i.e., self, social, and cultural) and provide evidence of the three control dimensions for each.

### 2.1. Forms and types of controls

*Formal controls* are written measures initiated by management throughout a sales activity. Depending on the timing of the intervention, formal controls can be divided into three types: input (e.g., training/resources provided before the activity), behavioral/process<sup>1</sup> (e.g., behaviors measured during the activity), and output/outcome (e.g., comparison of benchmarks with

<sup>1</sup> Challagalla and Shervani (1996) later disaggregated behavioral/process controls into activity controls (i.e., managerial control of daily activities) and capability controls (i.e., managerial control of skills and abilities).

results after the activity; Anderson & Oliver, 1987; Challagalla & Shervani, 1996; Jaworski, 1988). Examples of formal control include plans, budgets, and quotas (Jaworski, 1988). By contrast, *informal controls* are unwritten normative influences in the sales environment (e.g., values, norms, beliefs). Informal controls can be divided into three types depending on who is initiating the control: self (i.e., self-initiated), social/peer/professional (i.e., work group initiated), and cultural (i.e., initiated by member of the organization; Jaworski, 1988; Jaworski & MacInnis, 1989; Jaworski et al., 1993). Examples of informal controls include work-group values (e.g., ethical standards), and organizational norms (e.g., citizenship expectations).

Thus, key differences exist in the way formal and informal controls have been conceptualized and measured. Formal controls are primarily initiated by management and reflect the different timings of management interventions (i.e., pre-selling activities are input controls, and post-selling assessments are output controls). By contrast, informal controls are primarily developed and maintained by workers (at the three levels), though management may play a secondary role in setting the context for informal controls to emerge (Merchant, 1985). However, the sales/marketing literature has paid scant attention to the timing of such controls (e.g., Is social control more important at the start of or during the initiative?). Finally, formal controls assume that worker goals are not aligned with organizational objectives, whereas informal controls may or may not be aligned (Jaworski, 1988). Table 1 presents existing measurement scales that generally capture the three types of informal controls.

## 2.2. Gaps in the literature

The SMCS literature has examined both formal and informal controls. However, theoretical development and empirical testing of informal controls is clearly deficient when compared with formal controls. According to Malek et al. (2018), 75% of 56 reviewed articles (1987–2018) examined formal outcome controls, while 93% examined formal behavioral controls. Moreover, only 20% of the articles assessed informal social controls, 14% informal self-controls, and just 7% informal cultural controls (Malek et al., 2018). Consequently, understanding of how informal controls operate is limited. This also precludes a complete understanding of the efficacy of formal controls, considering that informal controls are pervasive and interact with formal control measures (Flaherty & Pappas, 2012; Kim & Tiwana, 2014).

A review of the extensive SMCS work on formal controls is beyond the scope of the current research. However, we provide a summary of key SMCS research on informal controls in Table 2. As the table shows, answers to fundamental questions on informal controls remain obscure or unanswered. For example, all proposed/investigated antecedents of informal control are related to firm decisions (e.g., use of performance documentation, routineness of the job/tasks; Agarwal, 1996; Jaworski & MacInnis, 1989; Jaworski et al., 1993). However, informal controls are primarily worker-initiated, and understanding of salesperson motivation to enact informal controls is limited.

Similarly, insights into the direct relationships between informal controls and key salesperson-level outcomes (derived from organizational control theory), such as job satisfaction and performance, are sparse (Malek et al., 2018). Despite the limited research, Jaworski et al. (1993) show that, among marketing/sales managers, cultural controls have a positive relationship to job satisfaction while social controls have no relationship—but what about self-controls? Lusch and Jaworski (1991) show that self-controls have no relationship to retail managers' performance while social controls have a negative relationship—but what about cultural controls? Last, social and cultural controls do not demonstrate any relationship to marketing/sales managers' performance—but what about self-controls? Why are there inconsistencies in how social and cultural controls influence performance? What do these results mean for individual salespeople? A key limitation of extant research is that self-, social, and cultural controls are rarely studied together even though all three are likely to be in play in a sales environment. Another limitation is that the sparse investigations into the effects of informal controls on salesperson performance are largely at the aggregate level (i.e., all informal controls measured together or sales force-level performance measured, e.g., Cravens, Lassar, Low, Marshall, & Moncrief, 2004; Panagopoulos et al., 2015). Therefore, solid insights into how informal controls influence salesperson job satisfaction and performance are missing.

Importantly, we have reason to believe that scales used to measure informal controls do not capture the entire theoretical domain of the constructs (i.e., information, rewards, and punishments), thus calling into question whether the literature has a complete view of any effects of informal controls. This might explain some of the surprising and non-significant findings in informal controls research (e.g., Jaworski & MacInnis, 1989; Jaworski et al., 1993). We elaborate on this issue further in the following sub-sections.

## 2.3. Dimensions of controls

Controls have a content component (i.e., information on expectations) and a use component (i.e., positive and negative reinforcement of the expectations; Flamholtz, 1996; Merchant, 1985). Accordingly, the sales literature has identified two distinct dimensions of control: information and reinforcements (i.e., rewards and punishments) that are contingent on compliance (Anderson & Oliver, 1987; Challagalla & Shervani, 1996; Jaworski, 1988; Ouchi, 1979). *Information* refers to what is communicated to or generated by individuals about goals, norms, standards, or expectations (Challagalla & Shervani, 1996). *Reinforcements* refer to how the controls are activated in a way that *rewards* desirable behaviors or outcomes and *punishes* deviations from those expectations (Challagalla & Shervani, 1996). Although these dimensions are interrelated, information and reinforcements must be disentangled to determine the efficacy of the controls themselves (Challagalla & Shervani, 1996; Oliver & Anderson, 1994).

**Table 1**  
Existing informal controls scales.

Author(s)	Scales
Jaworski & MacInnis (1989)	<p><u>Professional (i.e., social) controls (5-point, strongly agree/disagree)</u></p> <ol style="list-style-type: none"> <li>1. The division encourages cooperation between marketing professionals.</li> <li>2. Most of the marketing professionals in my division are familiar with each other's productivity.</li> <li>3. The division fosters an environment where marketing professionals respect each other's work.</li> <li>4. The division encourages job-related discussions between marketing professionals.</li> <li>5. Most marketing professionals in my division are able to provide accurate appraisals of each other's work.</li> </ol> <p>Scale also used by Agarwal (1996); Cravens et al. (2004); Flaherty &amp; Pappas (2012); Jaworski et al. (1993); Panagopoulos et al. (2015)</p> <p><u>Self-controls (5-point, strongly agree/disagree)</u></p> <ol style="list-style-type: none"> <li>1. The major satisfaction in my life comes from my job.</li> <li>2. The work I do in this job is very meaningful to me.</li> <li>3. I feel that I should take credit or blame for the results of my work.</li> </ol> <p>Scale also used by Agarwal (1996); Flaherty &amp; Pappas (2012); Guenzi et al. (2014); Panagopoulos et al. (2015)</p>
Lusch & Jaworski (1991)	<p><u>Self-controls (5-point, strongly agree/disagree)</u></p> <ol style="list-style-type: none"> <li>1. I have a lot to say about how to do my job.</li> <li>2. How satisfied are you with the amount of control you have in your work?</li> <li>3. I feel free to offer suggestions concerning policies and procedures affecting the organization.</li> </ol> <p><u>Social controls (5-point, strongly agree/disagree)</u></p> <ol style="list-style-type: none"> <li>1. Working for xyz is like being part of a family.</li> <li>2. The people here are proud to work for xyz.</li> </ol>
Jaworski et al. (1993)	<p><u>Cultural controls (5-point, strongly agree/disagree)</u></p> <ol style="list-style-type: none"> <li>1. The work environment encourages marketing professionals to feel like a part of the division.</li> <li>2. The work environment encourages marketing professionals to feel a sense of pride in their work.</li> </ol> <p>Scale also used by Cravens et al. (2004); Guenzi et al. (2014); Panagopoulos et al. (2015)</p>

Dimensions of control have been extended to formal controls to disaggregate the content of managerial controls (i.e., information on behavioral or outcome expectations) from the use of managerial controls as rewards and punishments (Challagalla & Shervani, 1996, 1997). For example, if a sales target is set without any reference to how the salesperson will be rewarded (e.g., “I would get bonuses if I exceed my sales volume or market share targets”; Challagalla & Shervani, 1996) or punished (e.g., “I would receive an informal warning if sales volume or market share targets are not achieved”; Challagalla & Shervani, 1996), whether the sales target is effective on its own or whether salespeople are responding to rewards and punishments associated with adherence to that sales target will be unclear.

#### 2.4. Informal controls: Types and dimensions

Informal controls are no different from formal controls, in terms of their dimensionality. Information and reinforcements may appear different (e.g., informal norms vs. formal criteria, team support vs. bonus checks), but the necessity for each component is the same. For example, if every member of a sales team comes to work each morning and informally discusses strategy, the absence of one team member could somehow be met with punishment from the group (e.g., not being told about what was discussed in the meeting). Conversely, a member who consistently supports informal work-group communications may somehow be positively reinforced by the group (e.g., be given important support or resources). Thus far, whether the three dimensions of social control (i.e., information, rewards, and punishments) differentially influence salespeople is unknown.

Therefore, we extend the information, rewards, and punishments dimensions to each type of informal control and provide conceptual evidence of distinction from the controls literature. In general, we follow Podsakoff, MacKenzie, and Podsakoff's (2016) recommendation to create conceptually clear definitions of our constructs through literature review, qualitative field work, and the use of expert judges.

##### 2.4.1. Self-controls

*Self-control* involves the creation of personal work objectives (without being prompted by management), the monitoring of progress, and the process of course correction or behavioral adjustment as necessary (Drucker, 1954; Jaworski, 1988; Jaworski & MacInnis, 1989). The establishment of personal goals and objectives comes from individual motivation to perform the job and a personal commitment to the outcome (Drucker, 1954; Jaworski & MacInnis, 1989; Merchant, 1985). Individuals who exercise self-control create personal work objectives to develop their skills and abilities (Hopwood, 1974). These descriptors of self-controlled information (i.e., what is communicated to or generated by individuals about goals, norms, standards, or expectations) provided by organizational control theory literature support the formulation of *self-information* as the degree to which an individual engages in self-setting, self-monitoring, and self-assessing personal work-related objectives.

Success in achieving personal work goals may be met with personal satisfaction, pride in achievement, and a feeling of control over one's own acts (Hopwood, 1974; Merchant, 1985). In addition, individuals may experience elation, a sense of self-mastery, satisfaction of ego, increased self-esteem, and/or self-actualization when personal objectives are achieved

**Table 2**  
Empirical research on informal controls in major marketing and sales journals\* (1988–present).

<b>Self-Controls</b>		
<u>Articles</u>	<u>Antecedents</u>	<u>Consequences</u>
Agarwal (1996); Flaherty & Pappas (2012); Jaworski & Macinnis (1989); Lusch & Jaworski (1991); Panagopoulos et al. (2015)	Use of performance documentation (+) Procedural knowledge ( <i>ns</i> )	Marketing executive's dysfunctional behavior (-) Retail manager's role stress (-) <b>Retail manager's performance (<i>ns</i>)</b> Salesperson's idea transfer to managers (+) Salesperson's information asymmetry ( <i>ns</i> ) Salesperson's job tension ( <i>ns</i> ) Salesperson's dysfunctional behavior when performance documentation is low (-) Sales organization's behavioral performance (+) Sales organization's outcome performance (+) Sales organization's customer relationship performance (+)
<b>Social Controls</b>		
<u>Articles</u>	<u>Antecedents</u>	<u>Consequences</u>
Agarwal (1996); Flaherty & Pappas (2012); Guenzi et al. (2014); Jaworski & Macinnis (1989); Jaworski et al. (1993); Lusch & Jaworski (1991); Panagopoulos et al. (2015)	Use of performance documentation (+) Procedural knowledge ( <i>ns</i> ) Learn-job time ( <i>ns</i> ) Completeness of managers' evaluation systems (+) Strategic business unit (SBU) size (-) SBU profitability ( <i>ns</i> ) Task interdependence ( <i>ns</i> ) Task routineness (-) Task completeness (+)	Marketing executive's dysfunctional behavior ( <i>ns</i> ) Marketing/sales manager's person-role conflict ( <i>ns</i> ) Marketing/sales manager's role ambiguity (-) <b>Marketing/sales manager's job satisfaction (<i>ns</i>)</b> <b>Marketing/sales manager's performance (<i>ns</i>)</b> Retail manager's role stress (-) <b>Retail manager's performance (-)</b> Salesperson's idea transfer to managers (-) Salesperson's information asymmetry (-) Salesperson's job tension (-) Salesperson's dysfunctional behavior (-) Sales force's adaptive selling (+) Sales force's customer-oriented selling ( <i>ns</i> ) Sales unit effectiveness ( <i>ns</i> ) Sales organization's behavioral performance (+) Sales organization's outcome performance (+) Sales organization's customer relationship performance (+)
<b>Cultural Controls</b>		
<u>Articles</u>	<u>Antecedents</u>	<u>Consequences</u>
Guenzi et al. (2014); Jaworski et al. (1993); Panagopoulos et al. (2015)	Learn-job time (+) Completeness of managers' evaluation systems (+) SBU size ( <i>ns</i> ) SBU profitability ( <i>ns</i> ) Task interdependence ( <i>ns</i> ) Task routineness (-) Task completeness (+)	Marketing/sales manager's person-role conflict (-) Marketing/sales manager's role ambiguity (-) <b>Marketing/sales manager's job satisfaction (+)</b> <b>Marketing/sales manager's performance (<i>ns</i>)</b> Sales force's adaptive selling ( <i>ns</i> ) Sales force's customer-oriented selling (+) Sales unit effectiveness (+) Sales organization's behavioral performance (+) Sales organization's outcome performance ( <i>ns</i> ) Sales organization's customer relationship performance ( <i>ns</i> )

<sup>a</sup> Consequences highlighted in bold are related to individual job satisfaction and performance.

\*Journal of Marketing, Journal of Marketing Research, Journal of Retailing, Industrial Marketing Management, Journal of Personal Selling & Sales Management.<sup>a</sup>

(Dalton, 1971; Thomas, 1983). The inability to meet personal work goals, by contrast, can result in disappointment, a loss of self-esteem, feelings of failure, and/or guilt (Dalton, 1971; Thomas, 1983). These different self-responses outlined by organizational control theory literature, combined with the definition of reinforcement (i.e., how the controls are activated in a way that rewards desirable behaviors or outcomes and punishes deviations from those expectations), provide conceptual support for two additional facets of self-control. *Self-rewards* represent the degree to which an individual engages in internal, positive reinforcement contingent on adherence to personal work-related objectives, and *self-punishments* refer to the degree to which an individual engages in internal, negative reinforcement contingent on adherence to personal work-related objectives.

#### 2.4.2. Social controls

*Social controls* originate at the work-group level, in which individuals in social relationships exert pressure on one another to conform to a set of group-level agreements (Hopwood, 1974; Ouchi, 1979). The motivation to create group-level norms

comes from a commitment to shared values and common objectives (Dalton, 1971; Jaworski, 1988). In marketing, social controls are likely to form in various sub-units, including sales (Jaworski, 1988). Sales teams establish norms, monitor them, and act to ensure individual conformity (Jaworski, 1988). Social controls operate when salespeople engage in discussion and informal evaluation of one another's work (Jaworski & MacInnis, 1989). Drawing from organizational control theory literature regarding social control and information, we thus define *social information* as the degree to which an individual's work group develops values, norms, and beliefs; monitors adherence; and provides feedback.

Social controls are a powerful type of control; individuals experience significant pressure to conform to work-group norms (Hopwood, 1974; Merchant, 1985). Members who meet and exceed the status quo might collect rewards, such as peer approval, elevated membership, and informal group leadership (Dalton, 1971; Thomas, 1983). Reciprocally, deviant members may be subjected to a range of negative reactions, from casual joking to strongly worded reminders (Dalton, 1971; Hopwood, 1974; Merchant, 1985). Eventually, failure to conform to group norms could lead to open hostility or even ostracism (Dalton, 1971; Hopwood, 1974). These various in-group reactions based on individual conformity to social information, combined with the definition of reinforcement, flesh out two additional dimensions of social controls. *Social rewards* denote the degree to which an individual's work group engages in positive reinforcement contingent on adherence to work-group values, norms, and beliefs; *social punishments* depict the degree to which an individual's work group engages in negative reinforcement contingent on adherence to work-group values, norms, and beliefs.

#### 2.4.3. Cultural controls

*Cultural controls* are rooted in the broad values and normative behaviors shared across an organization (Jaworski, 1988; Merchant, 1985; Ouchi, 1979). Although all organizations have a culture, the nature of that culture can vary in terms of how implicit or explicit it is (Flamholtz, 1996). Accordingly, organizational control theorists indicate that the culture of a firm itself is a powerful way of controlling employee behavior (Flamholtz, 1996; Jaworski, 1988; Merchant, 1985; Ouchi, 1979). Cultural controls provide organizational members with informal means to monitor and evaluate individual alignment with the underlying attitudes, values, and beliefs that are likely to lead to organizational success (Merchant, 1985; Ouchi, 1979). Furthermore, when cultural controls are strong, the need for formal policies and rules declines (Merchant, 1985). Drawing from organization control theory literature on cultural controls and information, we conceive *cultural information* as the degree to which members of an organization develop broadly shared values, norms, and beliefs; monitor adherence; and provide feedback.

Adherence to the underlying values within the organization provides individuals with a sense of "pride in belonging" as well as reminders to everyone else of what it means to be a good citizen (Merchant, 1985; Ouchi, 1979). On the one hand, adherence is met with approval and informal status within the organization (Dalton, 1971). On the other hand, reactions to non-adherence range from simply being looked down on to being ignored or excluded (Hopwood, 1974). Drawing from organizational control theory literature on cultural controls and reinforcement, we define *cultural rewards* as the degree to which members of an organization engage in positive reinforcement contingent on adherence to broadly shared values, norms, and beliefs. By contrast, *cultural punishments* are the degree to which members of an organization engage in negative reinforcement contingent on adherence to broadly shared values, norms, and beliefs.

#### 2.4.4. Social versus cultural controls

Distinction between cultural (organization-level) and social (work-group-level) types of informal controls is well established in literature on informal controls (Jaworski, 1988; Jaworski, et al., 1993) and organizational culture and subculture (Hofstede, 1998; Hofstede, Hofstede, & Minkov, 2010). Namely, the values, norms, and beliefs that are developed within a work group (e.g., sales team, business unit) are distinct from the values, norms, and beliefs that guide an entire organization. For example, members of an organization might have a norm of community volunteering, while only one business unit within that organization has a norm of 5-minute huddles (i.e., meetings) every morning. Importantly, the level of control imposed by members of the organization versus the members of one's immediate work group is also distinct. For example, people in the organization may reward members who volunteer in the community with peer approval; whereas members of the business unit that has morning huddles do not reward members for participation, rather members who do not participate are shunned (i.e., punished) by the work group. It is therefore conceivable for salespeople to experience high (low) levels of social control and low (high) levels of cultural control simultaneously.

Although a salesperson may not work directly with individuals outside of their immediate work group daily, they certainly work with and encounter fellow members of the organization who are likewise familiar with the values, norms, and beliefs that guide the entire organization. Therefore, when (for example) a salesperson meets with a member of the marketing team, there is potential for cultural rewarding/punishing (in either direction) if there is a perception that organization-wide values are/are not being properly adhered to. More explicitly, if members of the organization believe that "salespeople should always put their customers first" and a salesperson is talking poorly about customers to a member of the marketing team, this could result in being reminded, or even ignored or excluded from future conversations. On the other hand, if the salesperson expresses a strong customer-first mentality, they might be regarded as an informal leader who is very likely to be successful. This can be contrasted with social controls, which are only developed and reinforced within one's immediate work group.

In sum, it is crucial to capture informal controls at both the social (work group) and cultural (broader organization) level to have a complete view of the *collective* informal pulls and pressures faced by salespeople in an organization.

## 2.5. 3x3 typology of informal controls

The dimensions and theoretical descriptors of informal controls presented here are not fully represented in current informal controls scales. For example, the most frequently used cultural controls scale (Jaworski et al., 1993) contains just two measurement items: “The work environment encourages marketing professionals to feel like a part of the division” and “The work environment encourages marketing professionals to feel a sense of pride in their work.” Although these two items capture theoretical descriptors of cultural rewards related to “membership” and “status” (Dalton, 1971; Hopwood, 1974; Thomas, 1983), the rewards are not contingent on adherence to cultural information (i.e., norms and values) in the measurement items; rather, they are simply a part of the work environment. Organizational control is a cybernetic process where standards are set and then rewards, and punishments are used to reinforce the standards (Flamholtz, 1996). Therefore, the contingent nature of cultural rewards and punishments on adherence to cultural information is a critical aspect of control. In addition, dimensions of cultural information (descriptors: organization-level “norms, values, monitoring, and feedback”) and cultural punishments (descriptors: organization-level sanctions like “disapproval, hostility, and ostracism” for non-compliance to cultural information) are not captured in the existing scale at all. So, the existing scale neither captures the contingent element of cultural control, nor does it reflect the full range and domain of the underlying theoretical construct.

Appendix Table A1 (columns 1 & 2) provides a conceptual comparison between theoretical dimensions and descriptors from informal controls literature and existing predominant informal control scale items. Table A1 provides support for a 3 × 3 (types by dimensions) conceptualization of informal controls, which is an extension of what Challagalla and Shervani (1997) have done previously with formal controls. Accordingly, we elected to develop new constructs and original measurement items to capture informal organizational controls. Table 3 lists the nine informal control constructs developed and operationalized in this research. Importantly, theory suggests that different dimensions of informal controls have differential relationships to relevant job consequences (outlined in the following section).

## 3. Consequences of informal controls dimensions

To investigate the nomological validity of our proposed measurement model, we include in our analyses two variables that represent important theoretical consequences of organizational control dimensions: job satisfaction and performance. Nomological validity means that the new measures of informal control relate to other constructs (in a network) in a way that would be predicted by theory (Cronbach & Meehl, 1955). Drawing on organizational control theory, we expect the underlying differences among the informal control dimensions (information, rewards, and punishments) to have differential relationships to a salesperson’s level of job satisfaction and subsequent performance. We elaborate on these dependent variables and formulate specific hypotheses next.

### 3.1. Job satisfaction

*Job satisfaction* is an “emotional reaction to overall job conditions” (Kumar & Pansari, 2016, p. 501) and, more specifically, is an assessment of salespeople’s feelings about the job and the work environment (Churchill, Ford, & Walker, 1974). Satisfied employees are less likely to miss work and more likely to stay with an organization and produce quality work (Kumar & Pansari, 2016).

#### 3.1.1. The effects of information on job satisfaction

In control systems, goals (i.e., “objectives or states which organizational members are trying to achieve or maintain”) are standards to which feedback can be compared (Lord & Hanges, 1987, p. 163). Goals and feedback (i.e., information) are frequently considered dual elements of a control system, as both are necessary for performance motivation to be effective (Bandura & Cervone, 1983; Klein, 1989; Locke, Shaw, Saari, & Latham, 1981; Lord & Hanges, 1987). Information produces better learning and closer regulation of performance, which motivates action (Lord & Hanges, 1987) and satisfaction (Bandura, 1977), regardless of whether one is learning or performance oriented. Both factors (goals and feedback) can increase task interest and satisfaction (Hulleman, Durik, Schweigert, & Harackiewicz, 2008; Locke & Bryan, 1967) as well as performance when considered together (Bandura & Cervone, 1983).

**H1.** (a) Self-information, (b) social information, and (c) cultural information increase job satisfaction.

**Table 3**

Constructs evaluated in study (adapted from Challagalla & Shervani 1997).

Informal control types	Dimensions of control		
	Information	Contingent rewards	Contingent punishments
Self-control	Self-information	Self-rewards	Self-punishments
Social control	Social information	Social rewards	Social punishments
Cultural control	Cultural information	Cultural rewards	Cultural punishments

### 3.1.2. The effects of rewards on job satisfaction

A reward system is essential to “controlling” human behavior in organizations (Flamholtz, 1996; Merchant, 1985; Porter, Lawler, & Hackman, 1987). Rewards ultimately influence performance; however, the primary function of rewards, as a core control system component, is to motivate individuals to engage in certain behaviors (Flamholtz, 1996). Motivation can occur ex ante or ex post. Ex ante, rewards provide an incentive to behave in a certain way; ex post, rewards positively reinforce behaviors that are in line with expectations (Flamholtz, 1996; Flamholtz et al., 1985). Positive reinforcement influences satisfaction by implying that certain behaviors will lead to accomplishment; moreover, it can be internal or external to an individual and experienced or observed (Bandura, 1977). Tangible (e.g., financial) and intangible (e.g., status) organizational rewards are positive determinants of job satisfaction (Farrell & Rusbult, 1981; Kalleberg, 1977; Kalleberg & Griffin, 1978)

**H2.** (a) Self-rewards, (b) social rewards, and (c) cultural rewards increase job satisfaction.

### 3.1.3. The effects of punishments on job satisfaction

Punishments are controversial and somewhat less investigated and understood than rewards (Arvey & Ivancevich, 1980; Bandura, 1977; Trevino, 1992). Nevertheless, it is widely recognized that organizations (leaders and members) use punishments as a control mechanism (Wang & Murnighan, 2017). For example, Kantor and Streitfeld (2015) revealed that the informal environment at Amazon.com encourages peer sanctioning as a way of controlling employee behavior. Although the limited empirical studies on organizational punishments typically examine how subordinates react when supervisors punish (e.g., Arvey & Ivancevich, 1980; Podsakoff, Bommer, Podsakoff, & MacKenzie, 2006; Wang & Murnighan, 2017), deterrence research suggests that informal (worker-initiated) sanctions (versus formal supervisor-initiated sanctions) are a much stronger deterrent to inappropriate behavior because individuals fear losing respect and status (Trevino, 1992). Consequently, informal punishments may simultaneously have a positive influence on social learning and a negative influence on attitudes, emotions, and behaviors (Bandura, 1977; Trevino, 1992).

As with rewards, the primary function of punishments is to motivate individuals to engage in desired behaviors (Flamholtz, 1996). Motivation can similarly occur either ex ante or ex post. Ex-ante, punishments provide an incentive to behave in a certain way; ex post, punishments help modify behaviors that are not in line with expectations (Flamholtz, 1996; Flamholtz et al., 1985). When perceived negative discrepancy exists in what an individual does and what is necessary for achievement, he or she likely becomes dissatisfied (Bandura, 1977), and dissatisfaction acts as an impetus for behavioral change (Flamholtz, 1996; Flamholtz et al., 1985). The vicarious nature of punishments has the potential to not only influence the behavior of observers (or similar “others”), but also their level of satisfaction or discontent (Bandura, 1977).

**H3.** (a) Self-punishments, (b) social punishments, and (c) cultural punishments decrease job satisfaction.

## 3.2. Relative performance

A salesperson’s individual overall performance can be evaluated based on several quantitative (e.g., “Producing a high market share for your company”; Cravens, Ingram, LaForge, & Young, 1993) and qualitative (e.g., “Producing sales or blanket contracts with long-term profitability”; Cravens et al., 1993) criteria. *Relative performance* captures a salesperson’s perceptions of his or her individual performance relative to others working in a similar role in the organization (Behrman & Perreault, 1982). Although self-reported measures of performance are commonly utilized in cross-organizational research, it is still important to note that they have the potential to be biased by their very nature.

### 3.2.1. The effect of job satisfaction on relative performance

Social psychology literature has long posited a causal relationship between job satisfaction and performance (e.g., Bandura, 1977). The relationship is rooted in the notion that positive attitudes toward the job increase worker productivity because individuals want to engage in behaviors that support the work (Fishbein, 1973; Strauss, 1968). This is consistent with organizational control theory, which stipulates that controls are designed to motivate action, satisfaction, and, ultimately, performance (Bandura, 1977; Flamholtz, 1996). Judge, Bono, Thoresen, and Patton’s (2001) meta-analysis of 312 studies found a true mean correlation between job satisfaction and performance of 0.30, with additional evidence suggesting that these values are significantly higher in certain professions (e.g., sales) and for highly complex work ( $\rho = 0.52$ ). Thus:

**H4.** Job satisfaction increases relative performance.

## 4. Measure development and validation

In this section, we outline our scale development procedures for the nine informal control constructs presented in Table 3. We conducted an exploratory field study to aid in the generation of measurement items for the scales, followed by another field study to empirically validate the measurement model and test our hypothetical framework.

### 4.1. Study 1: Item generation

To examine whether salespeople experience informal controls in the way that theory outlines, we first conducted qualitative field interviews. We then applied theoretical thematic analysis to develop measurement items. Finally, we pretested the items with salespeople and academic experts in the field.

#### 4.1.1. Study context and sample characteristics

Interviews with field experts improve the face validity of measurement scales and aid in the development of a set of relevant items that have not yet been conceptualized in the literature (Hardesty & Bearden, 2004). We therefore conducted in-depth qualitative interviews with B2B salespeople and sales managers on the topic of informal organizational control. In the interviewee selection process, we used purposive or theoretical sampling because of the specialized knowledge of the population of interest and the purpose of the study. We selected a B2B selling context because B2B sales (versus B2C sales) require the consideration of multiple stakeholders and the cultivation of long-term relationships (both internally and externally; Johnston & Marshall, 2016; Lilien & Grewal, 2012), which means that informal controls (e.g., individual goals, work group expectations) are more likely to be in place. The context is also consistent with prior research on formal control types/dimensions (e.g., Challagalla & Shervani, 1996; 1997).

We drew from our own professional networks to recruit study respondents. Overall, the sample consists of 28 people involved in B2B sales. Interviewees were consistently enlisted until theoretical saturation within the scope of the research was achieved (i.e., the interviews no longer yielded additional insights). At the time of the interviews, interviewees were each directly involved in the types of informal interactions of interest within a sales environment and therefore had significant knowledge on relevant types and dimensions of informal control.

In selecting our sample, we attempted to achieve diversity among the interviewees so that we might uncover all potential manifestations of informal control pertinent to an array of B2B sales environments and situations. For example, the background of each salesperson and manager varied in terms of length of experience in B2B sales, length of time with the current organization, and role in the organization. In addition, we included salespeople and sales managers from different industries; for example, our sample includes individuals working for agricultural, technical, and manufacturing firms in various countries, including the United States, France, India, and Turkey. We chose to interview some individuals from countries outside the United States to ensure that we captured a wider breadth of informal control mechanisms. Table 4 outlines the characteristics of our sample group.

#### 4.1.2. Data collection

We prepared an interview guide with the help of two academic experts on conducting qualitative research. Interview questions were semi-structured around the following types of questions, but for each type of *informal control*: (1) “What are the norms?” (2) “How are they established/conveyed?” (3) “What do they mean to your behavior and performance?” and (4) “What happens when you or others are well-aligned/not well-aligned with norms?” For sales managers, questions focused on their observations of the social and cultural controls only. On average, interviews lasted approximately 30 minutes. Interviews were conducted either over Skype or by phone. We took detailed notes when respondents did not want to be audio recorded. Recorded interviews were transcribed and, in some cases (i.e., when clarification was needed), verified for accuracy with respondents. All respondents were assured of confidentiality and anonymity.

#### 4.1.3. Data analysis and results

We followed theoretical thematic analysis procedures Braun and Clarke (2006) outline to analyze interview data. Thematic analysis helps identify, analyze, and report *themes* (i.e., patterns of meaning present in data; Braun & Clarke, 2006). Theoretical thematic analysis (vs. inductive thematic analysis) explicitly focuses on analyzing data related to theory and research questions; thus, a theoretical approach entails engagement with literature before analysis (Braun & Clarke, 2006). Our analysis objectives were to identify relevant themes, triangulate those themes with theoretical descriptors of informal controls from the literature, and generate a comprehensive pool of measurement items. Our *data corpus* (or body of data) consists of the 28 interview transcripts. A *data item* is a single interview, and *data extracts* refer to coded chunks of data (e.g., words, phrases, sentences, paragraphs).

Interview questions were associated with specific informal control constructs as described; therefore, data were already organized into second-order theoretical themes (e.g., self-information). Consequently, we manually coded data extracts by construct (Braun & Clarke, 2006; Shilling, 2006) and then sorted the extracts into several initially identified first-order themes based on shared meaning (Gioia, Corley, & Hamilton, 2012). We used Microsoft Excel for coding and sorted codes into themes in Microsoft Word documents (across several iterations).

**Table 4**  
Qualitative sample characteristics by interviews (n = 28).

Country	Interviews	Industry	Interviews	Organization Size (# Employees)	Interviews	Job Title	Interviews
U.S.	12	Agricultural	4	Fewer than 1000	7	Sales rep.	5
U.K.	1	Software	5	1000–9,999	7	Account manager	10
Germany	1	Microchips	2	10,000–49,999	6	Directors:	
India	6	Hardware	5	50,000–99,999	0	Sales/marketing	6
France	2	Industrial	1	100,000+	8	VP sales/marketing	5
Iran	1	Construction	1			CEO/owner	2
Spain	1	Chemical	2				
Turkey	3	Services	4				
China	1	Cosmetics	1				
		Raw materials	3				

We identified numerous themes during initial rounds of data analysis, and through a process akin to axial coding (see Strauss & Corbin, 1998), we reduced and refined the number by iteratively comparing similarities and differences across extracts and themes (by construct). This recursive process involved moving among data (extracts), analysis (first-order themes), and writing (Braun & Clarke, 2006). Precise language played an important role in determining (1) convergence and divergence among data extracts affiliated with the same construct and (2) the scope of identified themes. The first-order themes retained through the process were then considered across data items (i.e., interviews). Specifically, we counted the number of data extracts that provide empirical support for each theme (see Appendix Table A2). We did this to ensure that retained themes would be relevant across various sales roles and contexts. Finally, we carefully examined theme names and refined them to ensure that they unambiguously defined associated data extracts. The Appendix (Figs. A1 and A2) contains an illustrative mind-map of the initial first-order themes around a second-order theme (self-information), followed by the finalized mind-map (i.e., thematic map) with the refined and consolidated first-order themes (see See Figs. A1 to A2).

We then triangulated finalized themes with theoretical descriptors of informal controls from the literature, to consider data and theory simultaneously in an abductive manner (Alvesson & Kärreman, 2007). For example, the interview question pertaining to social information asked sales representatives: “What is unique about the way your team works together?” This question evoked data extracts that we later associated with the themes of involvement, collaboration, contribution, support, accountability, and combating isolation. “Involvement” and “collaboration” are related to “goal setting” and “goal congruence” descriptors from organizational control theory literature (Thomas, 1983). Similarly, “contribution” is related to “establishing group-level norms of sharing and helping” (Dalton, 1971; Hopwood, 1974), and “support” represents the shared ideals of team members (Dalton, 1971). Finally, “accountability” is related to “monitoring” and “feedback” (Dalton, 1971; Thomas, 1983).

Some interview themes (e.g., “combating isolation”) were not present in the controls literature. Thus, we closely examined such themes against construct definitions. Recall that social information is the degree to which an individual’s work group develops work-related values, norms, and beliefs; monitors adherence; and provides feedback. “Combating isolation” is not part of developing, monitoring, or giving feedback on group norms and beliefs and therefore is not within the conceptual domain of the social information construct; however, it is an intriguing concept that appears to be a potential antecedent or consequence of social information. One sales professional noted, “Focus on the team can remove [salespeople] from the isolation that comes from working at home.” Many respondents made related comments about how “sales can be very lonely without [the team].” We removed themes that did not fit the conceptual domain of constructs from further analysis.

In addition, sometimes descriptors from the literature did not appear in the interviews. For example, Dalton (1971) notes that reactions to deviations from social information (i.e., social punishments) may take the form of good-natured kidding at first, then advance to disapproval, hostility, and ostracism. However, “kidding” did not come up in any of the interviews. Instead, it was clear that salespeople take non-adherence to work-group norms seriously. One respondent noted, “The team will react positively if it is learning and contributing to what they are doing. If it is not, you will lose people immediately.” Consequently, we did not include “kidding” in the social punishment scale.

Often, data extracts provided new insights that helped generate specific scale items. For example, although research suggests that ostracism is one of the most extreme forms of social punishment (Dalton, 1971; Hopwood, 1974; Thomas, 1983), how ostracism manifests exactly in a modern sales environment is unknown. Interviewees provided new understanding with remarks such as “someone is purposefully left out of a meeting,” individuals are “excluded from communication,” and “people don’t pay attention to you.” These insights led to the social punishment item: “Purposefully exclude members who fail to comply with group norms.”

Table 5 outlines, for each construct, the theoretical descriptors, and key data extracts (i.e., illustrative quotes from B2B salespeople). We used these data to develop a pool of measurement items. The pool of measurement items was thus grounded in both organizational control theory literature and thematic analysis of our field interview data.

#### 4.1.4. Construct/external validity

After we developed a pool of scale items, we wanted to ensure that the proposed scales were measuring what was intended (i.e., were construct valid; Churchill, 1979) and would be generalizable to an array of contexts (i.e., were externally valid; Calder, Phillips, & Tybout, 1982). Therefore, we refined and finalized construct definitions, scale items, and surveys using a process that included (1) exit interviews and/or survey pretests with 21 people in sales (including some of the initial interviewees) and (2) surveys of expert judges and/or pretests with nine academic experts on sales, marketing, scale development, and/or survey-based research methods. These procedures helped ensure both the face validity (i.e., items reflect the anticipated construct; Hardesty & Bearden, 2004) and content validity (i.e., full coverage of the theoretical domain; Hinkin, 1995) of each scale.

As a result of these efforts, we made changes to construct definitions, scale items, and survey instructions. For example, more than one academic expert noted that one of the initial self-information items (i.e., “I put effort into attaining my personal work-related objectives”) fell outside the theoretical domain of the construct; we therefore removed the item from the scale. Similarly, a sales expert indicated that initial survey instructions appearing before self-information questions did not clearly state that the goals in question are “independent of the financial and non-financial sales goals/quotas given to you by your supervisor(s)”; we thus added this wording to the survey. We selected 65 scale items in total to measure the nine informal controls. We drafted surveys 12 times before they were finalized.

**Table 5**  
Informal controls, theoretical descriptors, illustrative quotes.

Construct	Theoretical descriptors (control theory)	Illustrative quotes (B2B sales interviews)
<b>Self-information</b>	<i>Goal setting; monitoring; feedback</i> (Anderson & Oliver, 1987; Challagalla & Shervani, 1996; Dalton, 1971; Hopwood, 1974; Jaworski, 1988; Lusch & Jaworski, 1991; Merchant, 1985; Thomas, 1983)	“I set goals higher than the objectives are set internally.” “I engage in a process of constant goal evaluation and re-evaluation.” “If I'm off course, I try to have a contingency plan.”
<b>Self-rewards</b>	<i>Personal satisfaction; pride in achievement; increase in self-esteem; fulfillment of self-actualization; satisfaction of being in control; elation; satisfaction of ego; sense of self-mastery</i> (Anderson & Oliver, 1987; Bandura, 1977; Dalton, 1971; Hopwood, 1974; Lusch & Jaworski, 1991; Merchant, 1985; Thomas, 1983)	“[I have] a sense of accomplishment.” “It made me feel confident.” “I want to go to work and feel like I did something.” “For me there is definitely an intrinsic reward for me in knowing that I have affected some type of business deal.” “Excitement from achieving small goals.”
<b>Self-punishments</b>	<i>Loss of self-esteem; feeling of failure or guilt; sense of disappointment</i> (Dalton, 1971; Hopwood, 1974; Jaworski & MacInnis, 1989; Thomas, 1983)	“Self-esteem takes a hit when you lose a deal.” “There is guilt associated with not producing.” “I feel disappointed... I may even cry.”
<b>Social information</b>	<i>Goal setting; norms; values; goal congruence; monitoring; feedback</i> (Challagalla & Shervani, 1996; Dalton, 1971; Hopwood, 1974; Jaworski, 1988; Jaworski & MacInnis, 1989; Jaworski et al., 1993; Lusch & Jaworski, 1991; Merchant, 1985; Thomas, 1983)	“In the office normally, every day, we have regular conversations ... we [are] always discussing together.” “Everyone is sensitive to how things impact everyone.” “Working with my team is like a big collaboration.” “The salespeople can pick up pretty well on how hard the other salesmen are working.”
<b>Social rewards</b>	<i>Peer approval; membership; leadership; status</i> (Dalton, 1971; Hopwood, 1974; Jaworski & MacInnis, 1989; Lusch & Jaworski, 1991; Thomas, 1983)	“Recognition by the team is very rewarding.” “So, we all have respect for him because we know that he knows what he is doing. So, me personally, I follow his lead.” “[Those that are perceived as following norms] are sourced more often for important projects.”
<b>Social punishments</b>	<i>Kidding; disapproval; hostility; ostracism</i> (Dalton, 1971; Hopwood, 1974; Jaworski, 1988; Thomas, 1983)	“One needs to have a chat with them about the reason. I think that is generally I have seen that it is efficient ... a brief chat ... and then generally people walk in the same direction.” “When someone is not holding up their end of the bargain or pulling their weight, the team slows down, and animosity develops.” “Somebody is purposely left out of a meeting or excluded from communication.”
<b>Cultural information</b>	<i>Goal setting; norms; values; beliefs; goal congruence; monitoring; feedback</i> (Jaworski, 1988; Merchant, 1985; Ouchi, 1979)	“All of the employees know what is the organization's goal and where we are headed and where we want to head.” “Culture is communicated to the employees in practice.” “It is difficult to not do things the company way.” “People in the organization are seen as either on the team or not.”
<b>Cultural rewards</b>	<i>Peer approval; membership; leadership; status</i> (Hopwood, 1974; Jaworski et al., 1993; Merchant, 1985)	“People want to work with you.” “Opportunities are brought to you.” “People took interest in their development.”
<b>Cultural punishments</b>	<i>Kidding; disapproval; hostility; ostracism</i> (Dalton, 1971; Hopwood, 1974)	“[Salespeople who are not aligned with members of the organization] are viewed as an outsider or an isolated incident.” “Some may look down on you.” “If you piss off a lot of employees, your ability to be successful is significantly reduced.”

#### 4.2. Study 2: Measure validation

As MacKenzie, Podsakoff, and Jarvis (2005) recommended, we carefully considered relationships between the informal control constructs and their measures before specifying our model. First, we took into consideration whether measurement items collectively explain constructs (formative) or represent different manifestations of constructs (reflective). During the qualitative interviews, salespeople described what they did and observed; their reflections appeared more as manifestations of control than characteristics of control. For example, some salespeople observed that members were ignored when not living up to work-group expectations. From a temporal perspective, the act of “ignoring” in itself does not determine the level of social punishments; rather, ignoring reflects the degree of social punishments in use (Edwards & Bagozzi, 2000).

Second, we noted whether items within constructs are conceptually exchangeable (reflective) or not necessarily connected (formative). Although items within each of our scales reflect different shades of their constructs (e.g., the information constructs capture goal setting, monitoring, and feedback), these different aspects are reliant on a common core concept and

therefore are interchangeable. For example, self-information activities are all goal-related; the removal of one measurement item does not alter the underlying nature of the construct (Diamantopoulos & Winklhofer, 2001).

Third, we considered whether items within each construct should have high covariation (reflective) or if covariation is neither expected nor unexpected (formative). We would expect items within each construct to be highly correlated with one another. For example, cultural rewards such as peer approval, respect, informal leadership, and status go hand-in-hand.

Finally, we considered whether construct indicators should have the same antecedents and consequences (reflective) or whether indicators should have different antecedents and consequences (formative). We anticipate that items within the same construct have the same antecedents and consequences. Social punishments, for example, arise from group frustrations with members who do not comply with social information. Similarly, social punishments are likely to influence individual job satisfaction. Therefore, parallel to scales that capture different dimensions of the formal controls, we specified the informal control constructs in our measurement model as reflective.

We thus took several steps to validate the nine reflective informal controls scales. We first collected survey data from a panel of B2B salespeople in the field and then followed standard scale development procedures that Churchill (1979) and Gerbing and Anderson (1988) outline. We close this section with an examination of the nomological validity of our measures.

#### 4.2.1. Study context and sample characteristics

We collected survey data as a part of a larger study on informal controls. We partnered with Qualtrics Data Collection Services (QDCS) to assemble a panel of B2B salespeople working for a variety of large organizations (i.e., 250 + employees), from a variety of industries (15 + based on SIC codes), across geographic regions of the United States. QDCS has policies and procedures in place that minimize coverage bias, self-selection bias, non-response bias, and satisficing during data collection. For example, respondents are submitted to additional screening to ensure that they are verified B2B subjects. In addition, samples drawn from the panel base are proportional to the general population and then randomized before launching a survey to achieve population representativeness. Furthermore, to avoid self-selection bias, survey invitations are not specific to the content/subject matter of a given survey. Finally, respondents receive incentives corresponding to survey length, their specific profiles, and the level of difficulty in accessing them. QDCS also ensures the unique identity of each panel member.

In total, 2689 panelists, qualified in the initial screening and were contacted; we received 750 completed responses (28% response rate) based on our sampling quotas (e.g., we capped responses by industry). Our sample thus consists of 750 B2B salespeople (53% male), who fully completed (i.e., no missing values) a confidential and anonymous online survey in 24 minutes on average. QDCS screened out surveys that were completed in less than 7 minutes. Sample characteristics are representative and diverse, in support of external validity (see Table 6).

#### 4.2.2. Data collection

All psychometric measures used 5-point Likert-type scales. Various scale anchors (e.g., strongly disagree/strongly agree, very unlikely/very likely, very untrue/very true) appeared throughout the survey instrument, and reward and punishment scale items (by construct) were mixed together into a single question bank to balance positively and negatively worded items. These design-based approaches help reduce item characteristic effects, which can lead to common method bias (CMB; Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Furthermore, survey questions were ordered in a way that did not lead respondents from predictor to criterion variables, to reduce item-priming effects, which can also lead to CMB (Podsakoff et al., 2003). We used scales already validated in the literature to measure job satisfaction and performance. We captured job satisfaction ( $\alpha = 0.89$ ) with a scale from Comer, Machleit, and Lagace (1989) and measured relative performance ( $\alpha = 90$ ) with a scale from Cravens et al. (1993; see also Behrman & Perreault, 1982).

#### 4.2.3. Scale refinement

We began by conducting exploratory factor analysis in SPSS 26. We first applied a principal component analysis (PCA) with a Varimax rotation to measurement items by control type (i.e., self-information, rewards, and punishments scale items together) and then applied a PCA with a Varimax rotation to all measurement items by control dimension (i.e., all self-, social, and cultural information scale items together). We did this to ensure significant item loadings on one unique factor, without any large cross-loadings. All PCA applications demonstrated three separate components, except when the social punishments scale was included. Social punishments split into two factors, with more severe items such as “ignoring members” and “expressing negative opinions about members” standing apart.

Unexpected components may be indicative of model misspecification (i.e., formative constructs) or unknown reflective constructs; thus, they should not be dismissed without some consideration (Rossiter, 2002). We maintain that the measures are reflective of our previous conceptual considerations in addition to the strong PCA results (barring this particular issue). We also considered the possibility that there are two types of social punishments; however, exploratory analyses did not indicate that the “unknown component” was reliable, valid, or predictive. Consequently, we dropped three social punishment items.

We dropped a few other items because of the initial PCA applications. We made the decision when an item had a high cross-loading (on another related factor). For example, a couple of cultural rewards items cross-loaded (0.40–0.45) on the cultural information component. Theoretically, this is somewhat expected, as cultural information and cultural rewards are two positive dimensions of cultural controls. As this is the principal investigation into the proposed measurement model, we anticipated minor refinements (Churchill, 1979).

**Table 6**  
Survey sample characteristics by percentage of respondents (n = 750).

Gender	Age <sup>a</sup>		Yearly HH income <sup>a</sup> In thousands of dollars		Education		
Male	53%	18–24	4%	Up to 49,999	16%	Less than high school	.4%
Female	47%	25–34	25%	50–99,999	40%	High school graduate	6.7%
		35–44	29%	100–149,999	20%	Some college	10.1%
		45–54	23%	150–199,999	14%	2-year degree	8.9%
		55 or older	18%	200 or more	7%	4-year degree	48.4%
				Declined	3%	Graduate degree	22.9%
						Doctorate	2.5%

  

Industry	Role		Years in Organization		Years in Sales		
Agriculture	1.9%	Business development	32.9%	<1 year	4.5%	<1 year	2.3%
Natural resources	1.1%	Inside sales	20.4%	1 – <5 years	28.8%	1 – <5 years	17.6%
Utilities	2.7%	Outside sales	15.3%	5 – <10 years	34.7%	5 – <10 years	28.3%
Construction	5.1%	Account manager	22%	10 years or more	32%	10 years or more	51.9%
Manufacturing	14.9%	Other	9.3%				
Wholesale	5.3%						
Retail	5.2%						
Transportation	8.1%						
Finance/insurance	9.2%						
Real estate	3.3%						
Professional/technical services	14.5%						
Administrative/support services	2.8%						
Education	2.3%						
Healthcare	6%						
Arts/entertainment	1.7%						
Hospitality	5.2%						
Other	10.7%						

<sup>a</sup> Age and income data were only available for 727 of 750 respondents.

After removing problematic items, we took care to eliminate superfluous items as a way of developing manageable scales for future research. In practice, there is a trade-off between information that can be captured in a single survey and the reliability of that information (Drolet & Morrison, 2001). Therefore, fewer scale items are desirable, provided they are reliable and adequately tap the theoretical domain of a construct (Baumgartner & Homburg, 1996; Churchill, 1979). To that end, we removed redundant items if another item in the scale already captured the same theoretical concept with “synonymous adjectives” (Bergkvist & Rossiter, 2007, p. 175). Appendix Table A1 (column 3) lists the proposed set of new scale items. This can be compared with the theoretical descriptors of informal controls (column 1) for evidence of content validity.

As a matter of robustness, we applied all analyses (to follow) to both a long- and short-form version of the nine scales; however, differences in results were negligible. Thus, we deemed the short-form scales (presented herein) most appropriate. Table A3 in the Appendix contains the nine-factor rotated component matrix for the short-form informal control scale items, including item loadings and cross-loadings.

#### 4.2.4. Scale unidimensionality and reliability

After purifying the scales, we performed a one-factor confirmatory factor analysis (CFA) on each scale in Stata 13 as a measure of unidimensionality (i.e., a single construct underlying each set of scale items; Gerbing & Anderson, 1988). Resultant loadings and model fit indices provide support for the unidimensionality of each measurement scale. Cronbach's alpha (0.75–0.89), average variance extracted (AVE; 0.43–0.62), and composite reliability (0.75–0.89) calculations indicate that each scale is also reliable (i.e., independent items within each scale are comparable; Churchill, 1979). Table 7 contains the short-form informal controls scales and measurement items with factor loadings, as well as scale reliabilities.

#### 4.2.5. Measurement models

As Gerbing and Anderson (1988) recommend, we compared alternative models to our proposed nine-factor informal control measurement model. In particular, we conducted a CFA in Stata 13 on four different models and then compared fit indices. The nine-factor model distinguishes informal controls by both type and dimension. We compared this with a six-factor model that distinguishes only between information and reinforcements (i.e., rewards and punishments together) by informal control type. We also tested a three-factor model that distinguishes only between informal control type (i.e., self, social, and cultural). Finally, we included in our analysis a generic model with all informal control items loading onto just one latent factor. The results in Table 8 indicate the superiority of our nine-factor model with distinction between both types and dimensions of informal control.

**Table 7**Short-form informal control measurement model (n = 750,  $\chi^2(df, p) = 1273.25(491, 0.00)$ , RMSEA = 0.05, CFI = 0.93, TLI = 0.92, SRMR = 0.05).

Construct (Cronbach's alpha, AVE, composite reliability)	Standardized loadings	Standard error	2-tailed p-value
<b>Self-information: 3-item measure*</b> (0.81, 0.57, 0.80)			
<i>Please indicate how likely you are to engage in the following activities at work.</i>			
1. Developing your own work-related objectives	0.74	0.02	0.00
2. Tracking progress in achieving personal work-related objectives	0.84	0.02	0.00
3. Measuring work performance against standards you have set for yourself	0.77	0.02	0.00
<b>Self-rewards: 3-item measure*</b> (0.79, 0.59, 0.81)			
<i>How likely are you to experience the following when you meet or exceed your personal work objectives?</i>			
1. Feeling good about yourself	0.84	0.02	0.00
2. A sense of personal fulfillment	0.85	0.02	0.00
3. The feeling that you deserve credit for the work that you have done	0.59	0.03	0.00
<b>Self-punishments: 3-item measure*</b> (0.89, 0.62, 0.89)			
<i>How likely are you to experience the following when you do <u>not</u> meet your personal work objectives?</i>			
1. A feeling of inadequacy	0.79	0.02	0.00
2. A sense of guilt	0.79	0.02	0.00
3. Being discouraged	0.81	0.02	0.00
<b>Social information: 4-item measure*</b> (0.83, 0.55, 0.83)			
<i>Please indicate the degree to which the following statements reflect your immediate work group. My immediate work group...</i>			
1. ...outlines its expectations of group members.	0.75	0.02	0.00
2. ...emphasizes a common purpose.	0.74	0.02	0.00
3. ...provides feedback on how individual actions affect the entire group.	0.77	0.02	0.00
4. ...does not hesitate to give input on everyone's group-level involvement.	0.71	0.02	0.00
<b>Social rewards: 5-item measure*</b> (0.85, 0.53, 0.85)			
<i>How likely is your immediate work group to do the following?</i>			
1. Praise members who best represent group values	0.70	0.02	0.00
2. Regard exemplary members as informal leaders of the group	0.59	0.02	0.00
3. Allow the group to be guided by members who represent the values of the group	0.77	0.02	0.00
4. Show a high regard for members who demonstrate their dedication to this work group	0.80	0.02	0.00
5. Make sure that members who meet group expectations feel like part of the family	0.78	0.02	0.00
<b>Social punishments: 4-item measure*</b> (0.75, 0.43, 0.75)			
<i>How likely is your immediate work group to do the following?</i>			
1. Express negative opinions about members who are not meeting group expectations	0.60	0.03	0.00
2. Avoid members whose actions are seen to repeatedly violate the values of the group	0.68	0.03	0.00
3. Purposefully exclude members who fail to comply with group norms	0.77	0.02	0.00
4. Express dissatisfaction with members whose actions are inconsistent with group customs	0.56	0.03	0.00
<b>Cultural information: 4-item measure*</b> (0.84, 0.57, 0.84)			
<i>Please indicate the degree to which the following statements are reflective of the organization that you currently work for.</i>			
1. This organization believes in a common way of doing things.	0.65	0.02	0.00
2. This organization monitors everyone's involvement in our shared customs.	0.80	0.02	0.00
3. Members of this organization keep an eye on who is on board with company values, and who is not.	0.77	0.02	0.00
4. The organization has ways of letting people know how well they are fitting in with the company's culture.	0.78	0.02	0.00
<b>Cultural rewards: 4-item measure*</b> (0.79, 0.51, 0.80)			
<i>Please indicate the degree to which the following statements are reflective of the organization that you currently work for.</i>			
1. Employees who believe in the values of this organization have the potential to go far here.	0.71	0.02	0.00
2. Members who personify the culture of this organization are regarded as informal leaders.	0.53	0.03	0.00
3. This organization champions members who are seen as embodying its values.	0.75	0.02	0.00
4. Those who embrace the values of this organization are successful here.	0.82	0.02	0.00
<b>Cultural punishments: 4-item measure*</b> (0.82, 0.53, 0.82)			
<i>Please indicate the degree to which the following statements are reflective of the organization that you currently work for.</i>			
1. Employees who do not buy into the values of this organization are deliberately left out of important discussions.	0.76	0.02	0.00
2. Employees who don't buy into the culture of this organization have a difficult time being accepted here.	0.71	0.02	0.00
3. Members who do not represent this organization well are made to feel less welcome here.	0.76	0.02	0.00
4. Members of this organization have less regard for those members who are not representing the company well.	0.69	0.02	0.00

\*Additional scale items (not displayed here) were removed as a part of the scale refinement process.

**Table 8**  
Measurement model comparisons (n = 750).

Model	$\chi^2$	df	$p < [\chi^2]$	RMSEA	CFI	TLI	SRMR
<b>9-factor model</b>	<b>1273.25</b>	<b>491</b>	<b>0.00</b>	<b>0.05</b>	<b>0.93</b>	<b>0.92</b>	<b>0.05</b>
<b>6-factor model</b>	4053.88	512	0.00	0.10	0.69	0.66	0.11
<b>3-factor model</b>	5098.86	524	0.00	0.11	0.60	0.57	0.11
<b>1-factor model</b>	6614.20	527	0.00	0.12	0.47	0.43	0.12

**9-factor model** = self-information, self-rewards, self-punishments, social information, social rewards, social punishments, cultural information, cultural rewards, and cultural punishments.

**6-factor model** = self-information, self-reinforcements (i.e., reward & punishment items together), social information, social reinforcements, cultural information, and cultural reinforcements.

**3-factor model** = self-controls (i.e., information, rewards, & punishments all together), social controls, and cultural controls.

**1-factor model** = informal controls (i.e., all items together).

**Table 9**  
Chi-square difference test of discriminant validity for related informal control factors (n = 750).

	Socialinfo = social information Socialrew = social rewards Socialpun = social punishments	Culinfo = cultural information Culrew = cultural rewards Culpun = cultural punishments	Difference (df, $\chi^2$ )
Two Factors	Constrained Model <sup>#</sup> (df, $\chi^2$ )	Unconstrained Model (df, $\chi^2$ )	
Selfinfo/Selfrew	(9, 398.80)	(8, 20.25)	(1, 378.55) <sup>***</sup>
Selfinfo/Selfpun	(9, 842.64)	(8, 11.54)	(1, 831.10) <sup>***</sup>
Selfrew/Selfpun	(9, 926.32)	(8, 32.06)	(1, 894.26) <sup>***</sup>
Socialinfo/Socialrew	(27, 447.78)	(26, 156.75)	(1, 291.03) <sup>***</sup>
Socialinfo/Socialpun	(20, 750.56)	(19, 139.37)	(1, 611.19) <sup>***</sup>
Socialrew/Socialpun	(27, 796.62)	(26, 236.52)	(1, 560.10) <sup>***</sup>
Culinfo/Culrew	(20, 438.08)	(19, 111.48)	(1, 326.60) <sup>***</sup>
Culinfo/Culpun	(20, 1079.67)	(19, 76.37)	(1, 1003.30) <sup>***</sup>
Culrew/Culpun	(20, 1028.21)	(19, 164.74)	(1, 863.47) <sup>***</sup>
Selfinfo/Socialinfo	(14, 705)	(13, 75.52)	(1, 629.48) <sup>***</sup>
Selfinfo/Culinfo	(14, 777.02)	(13, 35.37)	(1, 741.65) <sup>***</sup>
Socialinfo/Culinfo	(20, 488.49)	(19, 95)	(1, 393.49) <sup>***</sup>
Selfrew/Socialrew	(20, 759.31)	(19, 104.99)	(1, 654.32) <sup>***</sup>
Selfrew/Culrew	(14, 700.52)	(13, 35.05)	(1, 665.47) <sup>***</sup>
Socialrew/Culrew	(27, 583.60)	(26, 199.11)	(1, 384.49) <sup>***</sup>
Selfpun/Socialpun	(14, 647.18)	(13, 57.04)	(1, 590.14) <sup>***</sup>
Selfpun/Culpun	(14, 963.18)	(13, 26.91)	(1, 936.27) <sup>***</sup>
Socialpun/Culpun	(20, 342.50)	(19, 70.08)	(1, 272.42) <sup>***</sup>

<sup>\*\*\*</sup> p < .001.

<sup>#</sup>Model constrained so that two factors are perfectly correlated at 1.

#### 4.2.6. Convergent and discriminant validity

For the nine-factor model, items affiliated with each construct displayed significant loadings (i.e., standardized loadings from 0.53 to 0.85;  $p < 0.00$ ), in support of convergent validity (high within-construct intercorrelations; Bagozzi, 1981; Bagozzi, Yi, & Philips, 1991). We used a chi-square difference test to examine discriminant validity (i.e., whether scale items correlate higher within than between constructs; Bagozzi, 1981; Bagozzi et al., 1991) between the informal controls by both type and dimension. Under Bagozzi et al.'s (1991) procedure, the discriminant validity of two scales is verified by comparing an unconstrained model, in which the correlation between the two factors is left free, with a model in which the correlation between the two factors is constrained at one. For discriminant validity to be verified, the fit of the unconstrained model must be superior to the constrained model and the difference must be significant under a chi-square test.

We thus conducted a two-factor CFA in Stata 13 for each pair of factors that share the same type (e.g., all self-control measures compared) and again for each pair of factors that share the same dimension (e.g., all punishment measures compared). We then repeated the CFA for every pair with the correlation of the two factors constrained to 1, adding one additional degree of freedom to each model. The unconstrained and constrained models were thus compared for each pair of factors. In every case, the chi-square fit of the unconstrained model was superior and significantly different from the constrained model, indicating discriminant validity between each pair of constructs (see Table 9). We therefore combined the measurement items for each construct into a single indicator by taking the mean, and we present the descriptive statistics and correlations among all the variables examined in Table 10.

As a robustness check of discriminant validity, we also applied the Fornell and Larcker (1981) criterion by taking the squared estimated correlation for paired factors that exhibited a correlation greater than 0.60 (see Table 10) and then comparing it with the AVE for each factor. For social information and social rewards, the squared correlation (0.40) is far below the AVE for either construct (0.55 and 0.53, respectively), confirming discriminant validity.

**Table 10**  
Means, standard deviations, and correlations among variables in survey 1 (n = 727<sup>a</sup>).

Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Self-information	4.35	0.75																	
2. Self-rewards	4.47	0.64	0.49*																
3. Self-punishments	3.08	1.10	0.01	-0.05															
4. Social information	3.96	0.76	0.36*	0.37*	-0.13*														
5. Social rewards	3.92	0.72	0.32*	0.31*	-0.10*	0.63*													
6. Social punishments	3.04	0.87	0.02	0.01	0.18*	0.03	0.17*												
7. Cultural information	3.84	0.81	0.25*	0.24*	-0.02	0.57*	0.54*	0.07*											
8. Cultural rewards	3.91	0.72	0.25*	0.28*	-0.01	0.47*	0.54*	0.05	0.57*										
9. Cultural punishments	3.04	0.91	0.01	-0.03	0.19*	-0.08*	-0.00	0.48*	0.05	0.10*									
10. Job satisfaction	4.12	0.77	0.36*	0.36*	-0.16*	0.55*	0.51*	0.02	0.49*	0.45*	-0.10*								
11. Relative performance	3.90	0.63	0.31*	0.33*	-0.15*	0.40*	0.39*	0.05	0.37*	0.30*	-0.00	0.56*							
12. Age	42	12	-0.07	0.01	-0.12*	-0.12*	-0.09*	-0.01	-0.14*	-0.11*	-0.02	0.00	-0.03						
13. Household income	2.48 <sup>b</sup>	2.87	0.05	0.02	-0.02	-0.01	0.07*	-0.00	-0.01	-0.01	-0.06	0.06	0.03	0.18*					
14. Education	4.78 <sup>c</sup>	2.04	0.05	-0.01	0.02	-0.05	-0.03	-0.03	0.03	-0.10*	-0.05	0.04	-0.02	0.01	0.03	0.05			
15. Sales tenure	3.30 <sup>d</sup>	0.48	0.06	0.07*	-0.08*	-0.06	0.04	-0.02	-0.09*	0.01	0.02	0.02	0.10*	0.26*	0.19*	0.10*			
16. Organization size	4.47 <sup>e</sup>	4.49	0.03	0.05	-0.05	0.01	-0.01	-0.02	0.02	0.02	-0.04	-0.08*	-0.02	0.01	0.04	0.03	0.08*		
17. Organizational tenure	2.94 <sup>f</sup>	0.61	-0.06	0.03	-0.05	-0.00	0.04	0.08*	0.02	0.00	0.06	0.01	0.13*	0.11*	0.03	0.08*	0.43*	0.10*	
18. Marker variable	3.86	2.30	0.06	0.09*	0.02	0.04	0.10*	0.01	0.11*	0.03	0.00	0.08*	0.13*	-0.06	0.05	-0.01	0.05	0.03	0.02

Zero-order correlations are equal to correlations adjusted for CMB.

<sup>a</sup> Age and income data were only available for 727 of 750 respondents.

<sup>b</sup> 2=\$50,000-\$99,999/year, 3=\$100,000-\$149,999/year.

<sup>c</sup> 4=2-year degree, 5=4-year degree.

<sup>d</sup> 3=5 to nearly 10 years, 4=10 years or more.

<sup>e</sup> 4=1000-2499 employees, 5=2500-4999 employees.

<sup>f</sup> 2=1 to nearly 5 years, 3=5 to nearly 10 years.

\* Correlation significant at the 0.05 level.

**Table 11**

Model 1: Direct effects of informal controls and control variables on job satisfaction (n = 727<sup>a</sup>) and relative performance at time 2 (n = 245).

Direct effects	Standardized estimate	Standard error
<b>Self-information → Job satisfaction (H1a)</b>	0.10 <sup>**</sup>	0.05
<b>Self-rewards → Job satisfaction (H2a)</b>	0.11 <sup>***</sup>	0.05
<b>Self-punishments → Job satisfaction (H3a)</b>	-0.10 <sup>***</sup>	0.04
<b>Social information → Job satisfaction (H1b)</b>	0.24 <sup>***</sup>	0.07
<b>Social rewards → Job satisfaction (H2b)</b>	0.10	0.07
<b>Social punishments → Job satisfaction (H3b)</b>	0.08	0.05
<b>Cultural information → Job satisfaction (H1c)</b>	0.17 <sup>***</sup>	0.06
<b>Cultural rewards → Job satisfaction (H2c)</b>	0.17 <sup>***</sup>	0.06
<b>Cultural punishments → Job satisfaction (H3c)</b>	-0.14 <sup>***</sup>	0.05
<b>Job satisfaction → Relative performance (H4)</b>	0.42 <sup>***</sup>	0.08
Age → Job satisfaction	0.07 <sup>**</sup>	0.03
Household income → Job satisfaction	0.04	0.03
Education → Job satisfaction	0.03	0.03
Sales tenure → Job satisfaction	0.00	0.03
Organization tenure → Job satisfaction	0.00	0.03
Organization size → Job satisfaction	-0.11 <sup>***</sup>	0.03
Self-information → Relative performance	0.05	0.08
Self-rewards → Relative performance	0.02	0.08
Self-punishments → Relative performance	-0.10	0.07
Social information → Relative performance	0.24 <sup>*</sup>	0.13
Social rewards → Relative performance	-0.05	0.12
Social punishments → Relative performance	0.08	0.12
Cultural information → Relative performance	0.09	0.11
Cultural rewards → Relative performance	-0.18	0.11
Cultural punishments → Relative performance	0.13	0.11
Age → Relative performance	-0.00	0.06
Household income → Relative performance	-0.01	0.06
Education → Relative performance	0.05	0.06
Sales tenure → Relative performance	0.14 <sup>**</sup>	0.07
Organization tenure → Relative performance	0.07	0.06
Organization size → Relative performance	-0.05	0.06

Two-tailed p-values: \*\*\* p < .01, \*\* p < .05, \* p < .10.

Model fit:  $\chi^2(df, p) = 2207.63 (1148, 0.00)$ ; RMSEA = 0.04; CFI = 0.93; TLI = 0.92; SRMR = 0.05.

R-square: job satisfaction (0.55); relative performance (0.40).

<sup>a</sup> Age and income data were only available for 727 of 750 respondents.

#### 4.2.7. CMB

To help mitigate potential CMB issues in our study, we included a theoretically unrelated marker variable (chosen a priori) in survey 1. This single item (“I prefer dogs to cats”) used the same Likert-type response format as other survey questions and was included in the middle of the job satisfaction scale to maximize the potential of capturing any CMB (Simmerring, Fuller, Richardson, Ocal, & Atinc, 2015). As expected, correlations between the variables of interest and the marker variable were low (Malhotra, Kim, & Patil, 2006; Simmerring et al., 2015; see Table 10). Following Lyndell and Whitney (2001), we used a partial correlation procedure to adjust construct correlations and significance levels using the lowest positive correlation between the marker variable and the other variables in the survey ( $r = 0.003$  between cultural punishments and marker variable). After this adjustment, none of the correlation values or significance levels changed, suggesting that CMB is not a major issue (Lyndell & Whitney, 2001). We also elected to measure relative performance ( $\alpha = 0.90$ ,  $\mu = 3.81$ ,  $\sigma = 0.63$ ) in survey 2 (n = 245) administered at least two weeks after survey 1 ( $\mu = 39$  days between surveys) to create temporal separation (Podsakoff et al., 2003).

#### 4.2.8. Nomological validity

Drawing on organizational control theory, we hypothesize different dimensions of informal control to have differential relationships to a salesperson’s level of job satisfaction and subsequent performance. To test the nomological validity (i.e., extent to which measures have expected relationships to other constructs; Churchill, 1979) of the nine measures of informal control, we conducted structural equation modeling in Mplus 8, using maximum likelihood estimation. Two models were estimated. Both models include 11 latent variables: the nine informal control measures, job satisfaction, and relative performance (in time 2), plus control variables (continuous and ordinal) capturing age, household income, education, sales tenure, organization size, and organizational tenure.

In Model 1, we estimated all direct effects, including the hypothesized relationships (H1-H4) as well as potential direct effects of the informal controls on relative performance (in time 2). The results indicate that seven of the nine informal controls have a direct relationship to job satisfaction (in the anticipated direction), and job satisfaction has a direct positive relationship to relative performance (at time 2). Self-information, self-rewards, social information, cultural information, and cultural rewards all have a significant positive relationship to job satisfaction and, subsequently, to relative performance.

**Table 12**

Model 2: Direct effects of informal controls and control variables on job satisfaction (n = 727 <sup>a</sup>); indirect effects of informal controls on relative performance at time 2 (n = 245).

Direct effects	Standardized estimate	Standard error
Self-information → Job satisfaction	0.10*	0.06
Self-rewards → Job satisfaction	0.11**	0.07
Self-punishments → Job satisfaction	-0.10***	0.03
Social information → Job satisfaction	0.24***	0.09
Social rewards → Job satisfaction	0.10	0.08
Social punishments → Job satisfaction	0.09	0.06
Cultural information → Job satisfaction	0.17**	0.08
Cultural rewards → Job satisfaction	0.17**	0.07
Cultural punishments → Job satisfaction	-0.14**	0.06
Job satisfaction → Relative performance	0.39***	0.08
Social information → Relative Performance	0.19*	0.11
Age → Job satisfaction	0.07**	0.03
Household income → Job satisfaction	0.04	0.03
Education → Job satisfaction	0.03	0.03
Sales tenure → Job satisfaction	0.00	0.03
Organization tenure → Job satisfaction	0.00	0.03
Organization size → Job satisfaction	-0.11***	0.03
Age → Relative performance	-0.03	0.07
Household income → Relative performance	-0.01	0.06
Education → Relative performance	0.05	0.06
Sales tenure → Relative performance	0.13*	0.07
Organization tenure → Relative performance	0.08	0.06
Organization size → Relative performance	-0.05	0.06
<u>Indirect effects (bootstrapping = 10,000 draws)</u>	<u>Standardized estimate</u>	<u>95% CI</u>
<b>Self-information → Job satisfaction → Performance</b>	0.04*	-
<b>Self-rewards → Job satisfaction → Performance</b>	0.05*	-
<b>Self-punishments → Job satisfaction → Performance</b>	-0.04***	[-0.07, -0.01]
<b>Social information → Job satisfaction → Performance</b>	0.09***	[0.02, 0.20]
<b>Social rewards → Job satisfaction → Performance</b>	0.04	-
<b>Social punishments → Job satisfaction → Performance</b>	0.03	-
<b>Cultural information → Job satisfaction → Performance</b>	0.07**	[0.01, 0.14 ]
<b>Cultural rewards → Job satisfaction → Performance</b>	0.07**	[0.01, 0.14 ]
<b>Cultural punishments → Job satisfaction → Performance</b>	-0.05**	[-0.11, -0.01]

Two-tailed p-values: \*\*\* p < .01, \*\* p < .05, \* p < .10.

Model fit:  $\chi^2(df, p) = 2216.35 (1156, 0.00)$ ; RMSEA = 0.04; CFI = 0.93; TLI = 0.92; SRMR = 0.06.

R-square: job satisfaction (0.55); relative performance (0.33).

<sup>a</sup> Age and income data were only available for 727 of 750 respondents.

Self-punishments and cultural punishments have a significant negative relationship to job satisfaction and subsequent relative performance. We thus find support for H1a–H1c, H2a, H2c, H3a, H3c, and H4. Somewhat surprisingly, social rewards and social punishments did not have a significant relationship to job satisfaction; thus, we reject H2b and H3b. Only one informal control (social information) had a significant (positive) direct effect on relative performance. The results of Model 1 results appear in Table 11.

Based on Model 1 results, we estimated Model 2; it is a mediated model (i.e., only the significant direct effect of social information on relative performance was retained), including the indirect effects of informal control types and dimensions on relative performance with bootstrapping (10,000 draws). The results in Table 12 provide additional support for the hypothesized model. Informal controls have an indirect relationship with relative performance (in time 2) through job satisfaction. Model 2 explains 55% of the variance in job satisfaction and 31% of the variance in relative performance in the data ( $\chi^2(df, p) = 2224.10 (1157, 0.00)$ , RMSEA = 0.04, CFI = 0.93, TLI = 0.92, SRMR = 0.06). Given the preponderance of evidence, the nine informal control constructs developed in this study demonstrate good psychometric properties.

**5. Discussion**

Organizational controls have been of significant interest to sales and marketing research for several decades because they play a critical role in the job satisfaction and performance of salespeople. The origins of controls, tracing back to their roots in the cybernetics literature, allude to two fundamental and equally effective forms of controls—formal and informal (e.g., Dalton, 1971; Hopwood, 1974; Merchant, 1985). However, an overwhelming majority of research on marketing and sales controls has focused on formal controls (Malek et al., 2018). As a result, the theoretical development of informal controls’ domain (including antecedents and consequences) remains sparse. Scholars and managers thus have an under-developed understanding of the influence of informal controls on salespeople (Malek et al., 2018). A significant factor contributing

to the paucity of exploration and understanding of informal controls is a lack of quality measures to comprehensively capture the richness of the domain (Anderson & Oliver, 1987; Kirsch et al., 2010).

Our study helps overcome this bottleneck in the theoretical and managerial development of an important aspect of marketing and sales. First, we provide empirical evidence that informal organizational controls (i.e., self, social, and cultural) each have three separate dimensions (information, rewards, and punishments), as outlined by organizational control theory. Second, we advance a comprehensive and parsimonious model to measure these different types and dimensions of informal controls and examine their influence on job satisfaction and subsequent performance of B2B salespeople. To our knowledge, our study is the first to empirically investigate the effect of a comprehensive set (i.e., types and dimensions) of informal organization controls on salespeople.

Our findings are in line with what Challagalla and Shervani (1996) found with formal control types/dimensions: controls influence performance through satisfaction. The influence of informal controls on performance through job satisfaction are explained by organizational control theory: information increases task interest, rewards imply that current behaviors will produce accomplishment, and punishments highlight the negative discrepancy between current behavior and achievement (Bandura, 1977; Flamholtz, 1996; Flamholtz et al., 1985). Based on our findings, this generally holds regardless of the type of informal control. However, social controls are more complex; while social information has the strongest (compared with other informal controls) relationship with job satisfaction and performance, social rewards and punishments have an insignificant influence on job satisfaction and performance. Taken together, results of this research support the validity and reliability of a 3x3 informal controls conceptualization and measurement model and provide new tools and insights for managers and researchers.

### 5.1. Theoretical contributions

In this research, we demonstrate theoretical and substantive support for nine distinct informal control constructs by developing and empirically testing new measures using a two-stage multi-method approach. Our measure development process began by triangulating theoretical descriptors of informal organizational controls with qualitative interviews conducted with a diverse group of B2B salespeople and managers across several countries. We followed this fieldwork with a large-scale survey of a broad sample of B2B sales representatives. This second phase tested and verified psychometric properties, such as the unidimensionality, internal consistency, reliability, convergent validity, discriminant validity, and nomological validity of the proposed measurement model. In doing so, we make two key theoretical contributions to organizational controls research in sales and marketing.

First, we advance comprehensive measures of fundamental informal control constructs, which provide new impetus to research on organizational, marketing, and sales controls (Podsakoff et al., 2016; Zeithaml, Jaworski, Kohli, Tuli, Ulaga, & Zaltman, 2020). In many instances, development of a comprehensive set of scales to measure marketing phenomenon have spurred new lines of inquiry or the extension of existing domains. For example, the MARKOR scales (Kohli, Jaworski, & Kumar, 1993) provided researchers with a measure of firm market intelligence generation, dissemination, and responsiveness (i.e., market orientation). That article currently has more than 3,000 citations in Google Scholar. Moreover, MARKOR scales have enabled innumerable insights (across service industries and countries) into the consequences and drivers of market orientation (e.g., Baker & Sinkula, 1999). In this spirit, we propose a comprehensive set of informal controls scales as a necessary precondition for not only advancing knowledge about informal controls but also developing a fuller understanding of organizational controls in general. It is our hope that this work will prompt renewed interest in the critical but often overlooked topic of informal organizational controls.

Second, our refined and complete model of informal organizational controls helps reconcile existing informal controls research and enables investigation into newly conceived research questions. For example, previous research has examined the influence of general self-control on retail manager performance at the individual level and found a non-significant effect (Lusch & Jaworski, 1991). By contrast, our research shows that among B2B salespeople, self-information and self-rewards have a positive influence on relative performance through job satisfaction while self-punishments have a negative influence through the same path. We argue that a general measure of “one’s feeling of self-control over the work,” as used in prior research, fails to capture both the upsides and downsides of self-control, which might lead to an erroneous conclusion that it has a non-significant influence. Our findings are more consistent with predictions of organizational control theory (e.g., Flamholtz, 1996; Flamholtz et al., 1985) and underscore the critical importance of increased differentiation among self-information, self-rewards, and self-punishments. These findings raise additional research questions. For example, what salesperson-level factors (e.g., skills, aptitude) influence self-information, self-rewards, and self-punishments? What organization-level factors (e.g., formal controls) influence relationships between the three self-control constructs and job satisfaction?

Similarly, previous research on social controls has shown that a general measure of social controls (at the individual level) has a non-significant influence on the job satisfaction or performance of marketing/sales managers (Jaworski et al., 1993) and has a negative influence on the performance of retail managers (Lusch & Jaworski, 1991). By contrast, our study’s more nuanced treatment of the social controls indicates that social information has a positive relationship to the job satisfaction and, ultimately, performance of B2B salespeople while social rewards and punishments have a non-significant influence. It is possible that team-/group-level values, norms, and beliefs are meaningful to B2B salespeople but less important to managers. The negative influence of general social control on retail sales manager performance suggests that social punishments (and perhaps rewards) could be more influential in some roles/contextes than others. These findings also raise important

research questions. For example, do social rewards/punishments influence the performance of inside salespeople more heavily than outside salespeople? How (through what process) does social information contribute to salesperson job satisfaction and performance?

Finally, extant research has shown that a general measure of cultural controls has a positive relationship to the job satisfaction of marketing/sales managers but no impact on their performance (Jaworski et al., 1993). By contrast, our results indicate that cultural information and cultural rewards have a positive influence on the relative performance of B2B salespeople through job satisfaction while cultural punishments have a negative influence on performance through job satisfaction. Thus, our study is the first to identify and confirm the negative aspects of cultural control. These findings stimulate several research questions. For example, how do cultural punishments develop in organizations? Do cultural punishments increase or decrease dysfunctional selling behaviors (e.g., gaming the system)? Taken together, the findings suggest that a more differentiated treatment, along with more comprehensive measures of informal controls proposed by our study, will not only lead to additional research and managerial insights but also open up new areas of theoretical development in the controls literature.

## 5.2. Managerial implications

Our research has implications for managers' understanding of benefits and potential costs of the informal sales environment. This understanding is becoming increasingly important, especially as remote work is on the rise globally (Robinson, 2020). As the nature of the work environment changes, at least in the B2B setting, salespeople are likely to become less observable by managers, and as such, informal controls are liable to become more essential (Stathakopoulos, 1996). In this sub-section, we provide the main insights from our research that provide specific managerial recommendations.

Our findings encourage managers to engage the discussion and development of informal information at the individual, work group, and organization levels. The values, norms, and beliefs that are developed and enacted at all three levels appear to positively influence salesperson job satisfaction and performance. How can managers do this? We suggest that managers should encourage the flow of informal information through what we term as the "three Os": (1) individual career development *options*, (2) work-group-level engagement *opportunities*, and (3) *occasions* to interact over shared company culture. However, managers should not approach this in the same way that they would with formal controls. The three Os do not entail written requirements/agendas, codified rules/routines, or mandatory salesperson involvement. Relatedly, the content of worker-initiated values, norms, and beliefs is not determined by managers. Rather, managers play a supporting role by cultivating an environment where informal information can flourish.

Regarding individual career development options, managers could offer salespeople dedicated career development time. This might include optional training on topics related to personal career planning and how to have performance development conversations. Progressive companies such as Google already allow employees to spend up to 20% of their working time developing their own projects (Robinson, 2018); salespeople could similarly be empowered to focus on their professional development. Work-group-level engagement opportunities include informal interactions with no pre-defined or manager-initiated agenda. For example, managers may wish to provide some flexible time and space for salespeople to enjoy informal gatherings with one another. This is in line with research suggesting that employed adults want more connection with those they work with and believe that this could be established by providing opportunities for colleagues to connect and check in with one another (Twaronite, 2019). Such a need may even be more pronounced in a post-pandemic world, in which forced isolation and remote work have highlighted an increasing need for personal interaction. Occasions to interact over shared company culture are organization-wide interactions and events in which individuals share cultural experiences. For example, Starbucks partners (employees) have developed a cultural norm of tasting coffee together (Leinwand & Davidson, 2016). Such occasions provide common ground for employees across an organization to have shared experiences, develop new norms, and ultimately to help shape the direction of the company's culture at a fundamental level.

However, this conventional wisdom related to the three Os also has potential costs. Something relatively unknown is the dynamics between social information and cultural information in an organization. In line with organizational control theory, social controls appear in our data to be one of the strongest forms of informal control (Hopwood, 1974; Merchant, 1985). Social information was the only informal control with a significant direct influence on salesperson performance in time 2. This raises important questions on whether the social information of a given work group is distinct from, aligned with, or in direct opposition to cultural information. When subcultures develop in organizations, there is also a real risk that they will collide with one another (Hofstede, 1998). Consequently, it is important for managers to observe the values, norms, and beliefs that guide individuals and work groups to understand how they fit within the broader organization. This also points to the importance of future research examining all informal controls in one comprehensive framework.

Our findings also suggest that self- and cultural rewards enhance salesperson job satisfaction and performance while self- and cultural punishments deflate job satisfaction and performance. These findings are supported by a large body of organizational psychology research demonstrating positive work cultures increase employee engagement and productivity (Seppälä & Cameron, 2015). Therefore, managers may want to inspire salespeople to focus on and celebrate their successes and use failures largely as a learning opportunity without overtly negative reactions. For example, academic research indicates that the most successful work teams emphasize psychological safety by making sure that everyone feels confident speaking up and making mistakes (Edmondson, 1999; Strauss, 2017). Psychological safety can only be developed when managers are engaged, understanding, open, and willing to share their own vulnerabilities. Sales managers might also consider

tackling cultural punishments head on by speaking up when workers attempt to stereotype or pigeonhole salespeople based on their past transgressions. By speaking out on undesirable norms, managers also help shape the culture of the organization. Overall, encouraging positive discussion on the development and reinforcement of values, norms, and beliefs at the individual and organization level could be an effective strategy.

On the other hand, our framework only uncovers the positive influence of self- and cultural rewards and the negative influence of self- and cultural punishments on performance through job satisfaction. There may be circumstances where self and cultural rewards and punishments differentially impact job satisfaction and performance. For example, social learning theory suggests that over-achievers with high but attainable goals (self-information) are more susceptible to dissatisfaction despite their prior achievements (Bandura, 1977). In addition, as social punishments do not appear to directly influence job satisfaction and performance, there may be some potential for peers to apply social punishments when salespeople are engaging in antisocial behaviors. A primary function of punishments is to motivate individuals to change their behavior, thus if social punishments do not reduce job satisfaction for individuals within a group, they could be useful to reduce salesperson opportunism (i.e., gaming, smoothing, focusing, inaccurate reporting; Jaworski & MacInnis, 1989) or antagonism (i.e., incivility, social undermining, interpersonal abuse; Chiaburu & Harrison, 2008). Social learning theory research suggests that punishment observers are also less likely to engage in such undesirable behaviors (Bandura, 1977). Therefore, managers may tolerate social punishments in some cases and with caution. However, punishments are tricky because research shows that while they promote peer cooperation through norms of fairness, they also support destructive behaviors that are harmful to group welfare (e.g., members using punishments inappropriately; Abbink, Gangadharan, Handfield, & Thrasher, 2017). Additional research is needed to understand all the potential benefits and costs of social punishments and social rewards.

### 5.3. Limitations and future research directions

This research is subject to limitations that also provide opportunities for future research. First, we empirically validated our measures only with a U.S. sample. Although we expect the reliability and validity of our scales to hold in an international context, it would be fruitful to determine how the use and effects of informal controls vary by national culture. Second, many professional jobs (e.g., accounting) involve the individual as well as collective (i.e., work-group-level and organization-level) specification and reinforcement of standards, norms, values, and objectives (Hopwood, 1974; Ouchi, 1979). Accordingly, we made every effort to develop the proposed measures in a way that they could be beneficial to an array of organizational contexts. However, we empirically validated the proposed measures only in a B2B sales context, so the opportunity exists to adapt and extend the applicability of these scales to contexts outside the sales domain. Third, our findings rely on cross-sectional data and only demonstrate an associative relationship between informal controls and satisfaction and performance. While we took several design-based and statistical precautions to reduce the impact of CMB in the test of nomological validity, an experimental design could help validate our findings and provide a test–retest verification of our measures from a causal perspective.

Finally, our study uses self-reported measures of salesperson perceptions of their own performance. Validated multiple-item measures of self-reported sales performance are useful to assure confidentiality to our diverse, representative panel of B2B salespeople from multiple organizations (at least 80 based on a cross-tabulation of organization size and industry; Behrman & Perreault, 1982). Churchill, Ford, Hartley, and Walker (1985) investigated 1653 reported associations between salesperson performance and its determinants (e.g., skill, aptitude, motivation, etc.). As a part of the study, the authors also looked at potential differences in results based on how performance is measured (self-reported, manager and peer ratings, objective company data, etc.). Their analyses suggest that the size of correlations between performance and its determinants is not inflated when self-reported measures are used. Recent research similarly notes that self-reported measures can be just as reliable as alternative sources, particularly when some performance aspects are unobserved by others (Spector, 2019). Nevertheless, additional studies that utilize objective performance data would be of great value. However, such a study would still have to tap multiple organizations to detect variance in the use of cultural controls.

### Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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### Appendix A

See Tables A1–A3.

Table A1

Comparison of theoretical descriptors of informal controls from the literature, existing informal control scale items, and proposed informal control scale items.

Theoretical Descriptors*	Existing Scale Items	Proposed Scale Items
<p><b>Self-controls</b></p> <p><b>Information:</b> goal setting, goal monitoring, feedback</p> <p><b>Contingent Rewards:</b> personal satisfaction, pride in achievement, increase in self-esteem, fulfillment of self-actualization, satisfaction of being in control, elation, satisfaction of ego, sense of self-mastery</p> <p><b>Contingent Punishments:</b> loss of self-esteem, feeling of failure or guilt, sense of disappointment</p>	<p><b>Self-controls</b> (Jaworski &amp; MacInnis, 1989)</p> <ol style="list-style-type: none"> <li>The major satisfaction in my life comes from my job. (<b>non-contingent rewards item@:</b> personal satisfaction)</li> <li>The work I do in this job is very meaningful to me. (<b>non-contingent rewards item:</b> fulfillment of self-actualization)</li> <li>I feel that I should take credit or blame for the results of my work (<b>contingent rewards item:</b> satisfaction of ego, <b>and contingent punishments item:</b> feeling of failure or guilt; reward valence of item is indeterminable)</li> </ol> <p><b>Assessment:</b></p> <ul style="list-style-type: none"> <li>No information items</li> <li>No punishments (only) items</li> <li>Non-contingent rewards items</li> <li>Scale does not fully capture conceptual domain &amp; has restricted range</li> </ul>	<p><b>Self-information</b></p> <p>Please indicate how likely you are to engage in the following activities at work.</p> <ol style="list-style-type: none"> <li>Developing your own work-related objectives (<b>information item:</b> goal setting)</li> <li>Tracking progress in achieving personal work-related objectives (<b>information item:</b> goal monitoring)</li> <li>Measuring work performance against standards you have set for yourself (<b>information item:</b> feedback)</li> </ol> <p><b>Self-rewards</b></p> <p>How likely are you to experience the following when you meet or exceed your personal work objectives?</p> <ol style="list-style-type: none"> <li>Feeling good about yourself (<b>contingent rewards item:</b> personal satisfaction, pride in achievement, increase in self-esteem, satisfaction of ego)</li> <li>A sense of personal fulfillment (<b>contingent rewards item#:</b> fulfillment of self-actualization)</li> <li>The feeling that you deserve credit for the work that you have done (<b>contingent rewards item:</b> satisfaction of being in control, sense of self-mastery)</li> </ol> <p><b>Self-punishments</b></p> <p>How likely are you to experience the following when you do <b>not</b> meet your personal work objectives?</p> <ol style="list-style-type: none"> <li>A feeling of inadequacy (<b>contingent punishments item:</b> loss of self-esteem)</li> <li>A sense of guilt (<b>contingent punishments item:</b> feeling of failure or guilt)</li> <li>Being discouraged (<b>contingent punishments item:</b> sense of disappointment)</li> </ol> <p><b>Social information</b></p> <p>My immediate work group. . .</p> <ol style="list-style-type: none"> <li>. . .outlines its expectations of group members. (<b>information item:</b> goal setting, norms)</li> <li>emphasizes a common purpose. (<b>information item:</b> values, goal congruence)</li> <li>. . .provides feedback on how individual actions affect the entire group. (<b>information item:</b> monitoring)</li> <li>. . .does not hesitate to give input on everyone's group-level involvement. (<b>information item:</b> feedback)</li> </ol>
<p><b>Social (i.e., peer) Controls</b></p> <p><b>Information:</b> goal setting, norms, values, goal congruence, monitoring, feedback</p>	<p><b>Professional (i.e., social) controls</b> (Jaworski &amp; MacInnis, 1989)</p> <ol style="list-style-type: none"> <li>The division encourages cooperation between marketing professionals. (<b>information item:</b> norms)</li> <li>Most of the marketing professionals in my division are familiar with each other's productivity. (<b>information item:</b> monitoring)</li> <li>The division fosters an environment where marketing professionals respect each other's work. (<b>non-contingent rewards item@:</b> peer approval)</li> <li>The division encourages job-related discussions between marketing professionals. (<b>information item:</b> norms)</li> <li>Most marketing professionals in my division are able to provide accurate appraisals of each other's work. (<b>information item:</b> feedback)</li> </ol>	

Table A1 (continued)

Theoretical Descriptors*	Existing Scale Items	Proposed Scale Items
<p><b>Contingent Rewards:</b> <i>peer approval, membership, leadership, status</i></p>	<p>Assessment:</p> <ul style="list-style-type: none"> <li>• Scale has primarily information items</li> <li>• Non-contingent rewards item</li> <li>• No punishment items</li> <li>• Scale does not fully capture conceptual domain</li> <li>• &amp; has restricted range</li> </ul>	<p><b>Social rewards</b> How likely is your immediate work group to do the following?</p> <ol style="list-style-type: none"> <li>1. Praise members who best represent group values (<b>contingent rewards item:</b> <i>peer approval</i>)</li> <li>2. Regard exemplary members as informal leaders of the group (<b>contingent rewards item:</b> <i>leadership</i>)</li> <li>3. Allow the group to be guided by members who represent the values of the group (<b>contingent rewards item:</b> <i>status</i>)</li> <li>4. Show a high regard for members who demonstrate their dedication to this work group (<b>contingent rewards item:</b> <i>peer approval</i>)</li> <li>5. Make sure that members who meet group expectations feel like part of the family (<b>contingent rewards item:</b> <i>membership</i>)</li> </ol> <p><b>Social punishments</b> How likely is your immediate work group to do the following?</p> <ol style="list-style-type: none"> <li>1. Express negative opinions about members who are not meeting group expectations (<b>contingent punishments item#:</b> <i>disapproval</i>)</li> <li>2. Avoid members whose actions are seen to repeatedly violate the values of the group (<b>contingent punishments item:</b> <i>hostility</i>)</li> <li>3. Purposefully exclude members who fail to comply with group norms (<b>contingent punishments item:</b> <i>ostracism</i>)</li> <li>4. Express dissatisfaction with members whose actions are inconsistent with group customs (<b>contingent punishments item:</b> <i>disapproval</i>)</li> </ol> <p><b>Cultural information</b> (strongly disagree/strongly agree)</p> <ol style="list-style-type: none"> <li>1. This organization believes in a common way of doing things. (<b>information item:</b> <i>goal setting, goal congruence</i>)</li> <li>2. This organization monitors everyone's involvement in our shared customs. (<b>information item:</b> <i>monitoring, norms</i>).</li> <li>3. Members of this organization keep an eye on who is on board with company values, and who is not. (<b>information item:</b> <i>monitoring, values</i>)</li> <li>4. The organization has ways of letting people know how well they are fitting in with the company's culture. (<b>information item:</b> <i>feedback</i>)</li> </ol> <p><b>Cultural rewards</b> (strongly disagree/strongly agree)</p> <ol style="list-style-type: none"> <li>1. Employees who believe in the values of this organization have the potential to go far here. (<b>contingent rewards item:</b> <i>membership, status</i>)</li> <li>2. Members who personify the culture of this organization are regarded as informal leaders. (<b>contingent rewards item:</b> <i>leadership</i>)</li> <li>3. This organization champions members who are seen as embodying its values. (<b>contingent rewards item:</b> <i>peer approval</i>)</li> <li>4. Those who embrace the values of this organization are successful here. (<b>contingent rewards item#:</b> <i>status</i>)</li> </ol>
<p><b>Contingent Punishments:</b> <i>kidding, disapproval, hostility, ostracism</i></p>	<p><b>Cultural Controls</b> (Jaworski, Stathakopoulos, &amp; Krishnan, 1993)</p> <ol style="list-style-type: none"> <li>1. The work environment encourages marketing professionals to feel like a part of the division. (<b>non-contingent rewards item@:</b> <i>membership</i>)</li> <li>2. The work environment encourages marketing professionals to feel a sense of pride in their work. (<b>non-contingent rewards item:</b> <i>status</i>)</li> </ol>	
<p><b>Cultural (i.e., organization-level) Controls</b> <b>Information:</b> <i>goal setting, norms, values, goal congruence, monitoring, feedback</i></p>	<p><b>Assessment:</b></p> <ul style="list-style-type: none"> <li>• No information items</li> <li>• No punishment items</li> <li>• Non-contingent rewards</li> <li>• Scale does not fully capture conceptual domain &amp; has restricted range</li> </ul>	
<p><b>Contingent Rewards:</b> <i>peer approval, membership, leadership, status</i></p>		

(continued on next page)

Table A1 (continued)

Theoretical Descriptors*	Existing Scale Items	Proposed Scale Items
<b>Contingent Punishments:</b> <i>kidding, disapproval, hostility, ostracism</i>		<b>Cultural punishments</b> (strongly disagree/strongly agree) <ol style="list-style-type: none"> <li>1. Employees who do not buy into the values of this organization are deliberately left out of important discussions. (<b>contingent punishments item:</b> <i>ostracism</i>)</li> <li>2. Employees who don't buy into the culture of this organization have a difficult time being accepted here. (<b>contingent punishments item:</b> <i>disapproval</i>)</li> <li>3. Members who do not represent this organization well are made to feel less welcome here. (<b>contingent punishments item:</b> <i>hostility</i>)</li> <li>4. Members of this organization have less regard for those members who are not representing the company well. (<b>contingent punishments item:</b> <i>disapproval</i>)</li> </ol>

\* Anderson & Oliver, 1987; Bandura, 1977; Challagalla & Shervani, 1996; Dalton, 1971; Hopwood, 1974; Jaworski, 1988; Jaworski & MacInnis, 1989; Lusch & Jaworski, 1991; Merchant, 1985; Ouchi, 1979; Thomas, 1983.

@ a non-contingent reward or punishment is independent of individual adherence to information. In this case, the reward (membership) comes from the work environment.

# a contingent reward depends upon individual adherence to information. In this case, the reward (status) comes from embracing the values of the organization (i.e., cultural information).

**Table A2**

Number of data extracts that provide support for finalized themes (n = 28).

<b>Second-order construct</b> Theme	<b>Data extracts</b>
<b>Self-information</b>	
Goal Setting	10
Goal Monitoring	9
Feedback	7
<b>Self-rewards</b>	
Satisfaction/excitement	3
Achievement	13
Increase in self-esteem/ego	10
Empowerment	11
<b>Self-punishments</b>	
Loss of self-esteem/ego	4
Failure/guilt	3
Disappointment	4
<b>Social Information</b>	
Involvement	18
Collaboration	19
Contribution norms	18
Support values	15
Accountability	15
<b>Social Rewards</b>	
Peer recognition/respect	12
Membership	7
Leadership	2
Status	10
<b>Social Punishments</b>	
Disapproval	5
Hostility	3
Exclusion	9
<b>Cultural Information</b>	
Goal setting	16
Goal congruence	9
Norms	30
Values	20
Monitoring	5
Feedback	4
<b>Cultural Rewards</b>	
Peer approval	5
Membership	7
Leadership	9
Status	11
<b>Cultural Punishments</b>	
Disapproval	17
Hostility	8
Ostracism	12

**Table A3**

Short-form informal controls scales\*: Study 2 rotated factor loadings (n = 750).

Variable	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7	Factor 8	Factor 9
Self-Information 1	0.05	0.04	0.06	0.02	0.00	0.02	0.00	0.11	<b>0.83</b>
Self-Information 2	0.10	0.14	-0.00	0.10	0.1	0.00	0.01	0.24	<b>0.80</b>
Self-Information 3	0.13	0.15	-0.01	0.07	0.07	0.03	-0.02	0.29	<b>0.74</b>
Self-Rewards 1	0.09	0.13	-0.06	0.04	0.13	-0.04	-0.03	<b>0.81</b>	0.24
Self-Rewards 2	0.19	0.13	-0.05	0.05	0.07	-0.06	-0.03	<b>0.80</b>	0.26
Self-Rewards 3	0.03	0.10	0.06	0.11	0.07	0.05	0.07	<b>0.76</b>	0.13
Self-Punishments 1	-0.05	-0.04	0.13	0.02	0.05	<b>0.85</b>	0.08	0.06	0.05
Self-Punishments 2	-0.02	0.01	0.05	-0.02	-0.01	<b>0.87</b>	0.11	-0.03	-0.02
Self-Punishments 3	-0.03	-0.12	0.07	-0.01	-0.02	<b>0.87</b>	0.04	-0.06	0.01
Social Information 1	0.26	<b>0.69</b>	-0.02	0.20	0.10	-0.06	-0.03	0.09	0.19
Social Information 2	0.27	<b>0.68</b>	-0.02	0.14	0.14	-0.01	-0.09	0.21	0.14
Social Information 3	0.20	<b>0.74</b>	-0.06	0.27	0.12	-0.06	0.04	0.12	0.05
Social Information 4	0.16	<b>0.76</b>	-0.03	0.20	0.14	-0.07	0.09	0.04	0.03
Social Rewards 1	<b>0.59</b>	0.32	-0.05	0.20	0.19	-0.01	0.01	0.15	0.08
Social Rewards 2	<b>0.77</b>	0.03	0.11	0.09	0.12	0.00	0.12	0.03	0.06
Social Rewards 3	<b>0.70</b>	0.26	0.03	0.28	0.15	-0.04	0.10	0.07	0.12
Social Rewards 4	<b>0.66</b>	0.32	-0.07	0.17	0.18	-0.04	0.13	0.12	0.14
Social Rewards 5	<b>0.67</b>	0.31	-0.11	0.20	0.21	-0.07	0.08	0.08	0.02
Social Punishments 1	-0.02	0.02	0.26	0.00	-0.03	0.08	<b>0.68</b>	0.12	-0.09
Social Punishments 2	0.20	-0.01	0.20	0.02	-0.04	0.08	<b>0.68</b>	-0.07	0.06
Social Punishments 3	0.02	-0.08	0.32	-0.01	-0.04	0.07	<b>0.73</b>	-0.02	-0.03
Social Punishments 4	0.13	0.20	0.07	0.0	0.10	0.03	<b>0.74</b>	-0.02	0.05
Cultural Information 1	0.16	0.27	-0.09	<b>0.60</b>	0.27	-0.03	-0.02	0.01	0.06
Cultural Information 2	0.20	0.17	0.06	<b>0.82</b>	0.14	-0.02	-0.01	0.04	0.08
Cultural Information 3	0.23	0.18	0.14	<b>0.78</b>	0.11	0.02	0.03	0.09	0.06
Cultural Information 4	0.15	0.22	-0.03	<b>0.73</b>	0.29	0.02	0.08	0.09	0.03
Cultural Rewards 1	0.21	0.18	-0.15	0.29	<b>0.66</b>	0.01	0.05	0.12	0.08
Cultural Rewards 2	0.34	0.04	0.30	0.10	<b>0.55</b>	0.02	-0.01	0.08	-0.02
Cultural Rewards 3	0.21	0.13	0.15	0.16	<b>0.78</b>	-0.00	-0.03	0.05	0.08
Cultural Rewards 4	0.12	0.19	-0.02	0.29	<b>0.77</b>	-0.01	-0.02	0.12	0.08
Cultural Punishments 1	-0.02	-0.05	<b>0.78</b>	0.04	-0.09	0.05	0.23	-0.02	-0.01
Cultural Punishments 2	0.12	-0.05	<b>0.78</b>	0.01	0.03	0.06	0.13	0.03	0.02
Cultural Punishments 3	-0.05	-0.04	<b>0.81</b>	-0.02	0.02	0.06	0.18	-0.04	0.03
Cultural Punishments 4	-0.06	0.03	<b>0.69</b>	0.05	0.22	0.10	0.26	-0.02	0.03

\*Scale items are numbered as they appear in Table 7.

## Appendix B. Supplementary material

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.ijresmar.2021.07.002>.

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