

THE INFLUENCE OF SALES MANAGEMENT  
CONTROL SYSTEMS ON SALESPERSON  
PERCEPTIONS OF THE ORGANIZATION

By

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## TABLE OF CONTENTS

CHAPTER	Page
I. INTRODUCTION.....	1
Perceived Organizational Support.....	7
Organizational Identification.....	9
Salesperson Compensation Plan Choice.....	10
Incentive Pay Horizon.....	13
II. REVIEW OF THE LITERATURE.....	21
Sales Performance.....	23
Sales Management Control Strategy.....	24
Organizational Identification.....	31
Perceived Organizational Support.....	33
Salesperson Compensation Choice.....	34
Incentive Pay Horizon.....	35
Signaling Theory.....	36
Social Identity Theory.....	39
Hypotheses.....	40
III. METHODOLOGY.....	51
Research Method and Design.....	51
Industry Setting.....	52
Sample.....	54
Measures.....	54
Analyses.....	64
Hypotheses Testing.....	64
IV. RESEARCH FINDINGS.....	66
Research Findings.....	66
Examination of the Data.....	66
Confirmatory Factor Analysis.....	68
Scale Reliabilities.....	70
Process Control.....	70
Output Control.....	72

Perceived Organizational Support.....	72
Organizational Identification.....	73
Salesperson Compensation Plan Choice.....	74
Incentive Pay Horizon.....	75
Performance.....	75
Hypotheses Tests.....	77
Test of Regression Model Assumptions.....	94
V. DISCUSSION.....	96
Summary of Findings.....	97
Implications.....	103
Theoretical Implications.....	103
Managerial Implications.....	105
Limitations and Future Research.....	107
REFERENCES.....	109
APPENDIX A: COVER LETTERS.....	122
APPENDIX B: SURVEY INSTRUMENT.....	124
APPENDIX C: SALES MANAGER COVER LETTER.....	129
APPENDIX D: SCRIPT PROVIDED TO COMPANIES .....	131
APPENDIX E: IRB REVIEW BOARD APPROVAL.....	133

## LIST OF TABLES

Table	Page
I. Qualitative Interview Participant Characteristics.....	6
II. Sales Management Control System Research.....	30
III. Sales Control Research Using Survey Method.....	52
IV. Descriptive Statistics of Study Variables.....	67
V. Full Measurement Model Results.....	69
VI. Process Control Scale: Coefficient Alphas and Item-To-Total Correlations.....	70
VII. Correlation Matrix for Variables in Study.....	70
VIII. Output Control Scale: Coefficient Alphas and Item-To-Total Correlations.....	72
IX. Perceived Organizational Support Scale: Coefficient Alphas and Item-To-Total Correlations.....	73
X. Salesperson Compensation Plan Choice Scale: Coefficient Alphas and Item-To-Total Correlations.....	74
XI. Salesperson Incentive Pay Horizon.....	75
XII. Correlation Matrix of Performance Measures.....	76
XIII. Regression Analysis of Formal Controls with Salesperson Perceived Organizational Support.....	79
XIV. Regression Analysis of Formal Controls with Salesperson Organizational Identification.....	80
XV. Mediation Effect of Perceived Organizational Support.....	82
XVI. Mediation Effect of Organizational Identification.....	85

## LIST OF FIGURES

Figure	Page
I. Qualitative Interview Questions.....	5
II. Salesperson Formal Control-Performance Model.....	22
III. Sales Outcome Performance Items.....	57
IV. Formal Control Items.....	58
V. Organizational Identification Measure.....	60
VI. Perceived Organizational Support Items.....	61
VII. Incentive Pay Horizon Categories.....	62
VIII. Salesperson Compensation Plan Choice Items.....	63
IX. Compensation Plan Choice Moderation Effects – POS.....	89
X. Compensation Plan Choice Moderation Effects – Organizational ID.....	92

## CHAPTER I

### INTRODUCTION

Management control has received a great deal of attention in the marketing literature during the past two decades and remains an important area for both researchers and practitioners (Baldauf, Cravens, and Piercy 2005). The intent of management control is to direct and influence the attitudes and behaviors of employees to achieve organization objectives (Ouchi 1979; Anderson and Oliver 1987; Jaworksi 1988). The traditional “command and control” form of managing salespeople is evolving toward more collaborative relationships between salespeople, managers, and customers (Corcoran, Baitch and Barrett 1995). However, previous models of control and incentive systems have consistently taken an economic perspective, rather than a social one (Kaplan and Henderson 2005). This could be a reason why the current state of sales control knowledge indicates important inconsistencies in the consequences of control (Baldauf et al. 2005). Challagalla and Shervani (1996, p.89) summarize the inconsistencies and the need for future research in this area by noting “the conflicting evidence on the effects of control are particularly disturbing because controls are central to the functioning of every organization.”

The inconsistencies in sales control research are also problematic for sales executives and managers. Despite the economic changes in the past twenty years driven by technology and the political environment, recent research has shown the high and



growing levels of company investment in sales forces and salespeople (Galea 2004); the shift in resource allocation from marketing to sales (Webster, Malter, and Ganesan 2003); and that sales activities are more crucial than ever to the attainment of marketing's top priorities (Piercy, Cravens, Lane, and Vorhies 2006). Recognizing these important sales management trends, and the critical inconsistencies in the marketing and sales control literature, the focus of this dissertation is to provide a theoretically based model of control that fills a gap in the existing literature and provides practitioners with a managerially relevant model that can help guide them in effectively using control systems with their sales force.

Chapter two provides a detailed literature review of sales management control strategies, but it is important to note here that since one of the goals of this dissertation is to provide guidance to managers regarding constructs they can impact, I will focus solely on formal controls. Formal control is comprised of output and process control, and is a written management initiated mechanism similar to behavior based control (Baldauf et al. 2005). Formal controls provide an example of the inconsistencies that can be found in the existing literature. Process control has been found to be positively related to performance (Piercy et al. 2006), negatively related to performance (Oliver and Anderson 1994), and unrelated to performance (Jaworksi et al. 1993). Output control has been found to be positively related to performance (Jaworski et al. 1993), negatively related to performance (Oliver and Anderson 1994), and to have no direct effect on performance (Lusch and Jaworski 1991). These inconsistent results suggest that controls have some type of effect on performance, but that there may be mediating variables yet to be examined in the literature through which this effect occurs. Since previous work in the

area of sales management control strategy has often produced conflicting results, and to ensure that current, practical sales management variables are being addressed a qualitative study was undertaken as a starting point for this research. To this end this chapter begins by delineating the methodology of a qualitative study to answer the following research questions.

1. What are the objective and subjective factors that are potentially mediating the sales control-performance relationship that could help to explain the inconsistencies in the control literature?
2. What emerging characteristics are practitioners using to impact and strengthen these relationships?

After a brief explanation of the methodology, the results of nineteen in-depth qualitative interviews are presented. Results from these structured qualitative interviews provide input to design the survey phase of the study.

## **Methodology**

### Research Design and Sample

When using an interview methodology, the range of perspectives examined is an important consideration. If a sample has little variation, a limited range of views will be gathered, and concerns will be raised regarding the representativeness and generalizability of the data. To overcome these challenges, I sampled informants from a wide spectrum of telecommunication companies and from a variety of positions within each organization. Initially the sampling frame consisted of wholesale business-to-business telecommunications organizations headquartered in the Midwestern United States. This sampling frame was later expanded to include additional wholesale carriers

headquartered in the Eastern and Western United States who provide service throughout the world as well as Competitive Local Exchange Carriers (CLEC) who offer services to generally small and midsize companies. Initially, phone interviews were conducted with sales executives from seven different telecommunications companies located throughout the U.S. The telecom companies selected ranged in size from large international carriers who serve Fortune 500 customers to small CLECs who sell bandwidth to local television stations and restaurant chains. At the completion of each of the interviews I requested permission and contact information for at least one salesperson and one sales manager. Some telecommunications executives provided information for more than one salesperson and/or sales manager. No preference was given for the type of salesperson (e.g., national account managers, wholesale, government, etc.). The time duration of each interview was approximately 30 minutes. Figure 1 provides a listing of the questions asked during each interview.

The ranges of the sample of interview participants included the following characteristics. Table 1 provides a complete listing of interview participant characteristics.

1. Age – 25 to 61
2. Gender – male and female
3. Company Tenure – 2 years to 21 years
4. Industry Tenure – 4 years to 34 years

FIGURE 1  
QUALITATIVE INTERVIEW QUESTIONS

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Describe your company's sales control system?

What effect do you think sales control systems have on the success of your organization?

What do you like best about your company's sales control system?

What do you like least about your company's sales control system?

What changes would you like to see made to your company's sales control systems?

Are sales control systems more or less important today compared to when you started in this industry?

Does your company's sales control system impact sales performance? If so, in what way?

How often are salespeople in your company evaluated?

How often are salespeople in your company compensated?

Are there any changes you would make as to how salespeople are evaluated or compensated in your company?

Are there any emerging factors that have started to influence any part of your company's sales control strategy?

---

TABLE 1

QUALITATIVE INTERVIEW PARTICIPANTS CHARACTERISTICS

<b>Title</b>	<b>Age</b>	<b>Gender</b>	<b>Company Tenure</b>	<b>Industry Tenure</b>
#1 (Sales VP)	44	Male	3 Years	17 Years
#2 (Sales VP)	61	Male	21 Years	34 Years
#3 (Sales Director)	39	Female	8 Years	14 Years
#4 (Sales VP)	43	Male	14 Years	20 Years
#5 (Salesperson)	34	Female	3 Years	9 Years
#6 (Sales Director)	51	Male	11 Years	23 Years
#7 (Salesperson)	30	Female	5 Years	5 Years
#8 (Sales Director)	38	Male	7 Years	15 Years
#9 (Salesperson)	38	Male	5 Years	12 Years
#10 (Sales Mgr.)	40	Female	4 Years	16 Years
#11 (Salesperson)	39	Female	7 Years	13 Years
#12 (Salesperson)	35	Female	3 Years	9 Years
#13 (Salesperson)	25	Male	2 Years	4 Years
#14 (Sales Mgr.)	49	Male	10 Years	23 Years
#15 (Salesperson)	29	Male	2 Years	4 Years
#16 (Salesperson)	32	Female	4 Years	5 Years
#17 (Salesperson)	35	Female	4 Years	6 Years
#18 (Sales Mgr.)	47	Male	3 Years	12 Years
#19 (Sales Mgr.)	44	Female	4 Years	19 Years

## Results

The following section describes thematically the results of the nineteen structured interviews with telecommunications salespeople, managers, and executives. This discussion of the results of the interviews is organized around the central themes of the interviews which involve variables that have been largely ignored in sales control research, including: perceived organizational support; salesperson organizational identification; the increasingly important role of giving salespeople choices in determining their compensation structure, and the role timing of incentive plan (Bonuses, commissions, etc.) payouts plays in effecting salesperson performance, attitudes, and behaviors.

### Perceived Organizational Support

The interviews yielded a number of interesting responses that helped provide direction for this study. A 38-year old salesperson of a fast-growing, regional telecommunications provider referred to salesperson compensation choice and his perception of the organizations support over time.

“The compensation structure I wanted 10 years ago just isn’t what I would dream about today. My desire to do good for the company and myself is as strong today as ever, if not stronger, but with a wife and a child I’m looking for a lot less variability in my paycheck.”  
(#9, M)

This interview participant went on to note that he feels that the organization does not support him and his life situations. He went on to question his future level of performance with the organization and that his beliefs on how things should be are increasingly divergent from what the company believes.

A 32-year old salesperson from a large national carrier also referenced the influence of her company's sales control system on her perceived level of organizational support.

"I think that a company who is focused on developing my skills and rewarding me on things I can directly control is the kind of company I want to grow with and work for. Every industry has ups and downs, and I have worked for companies who have stressed that they don't care about outside factors or how I do my job, they are only interested in results...I don't care what the company says, if this is their policy they are not going to be supportive of me and my career". (#16, F)

She discussed at length her view that an organization's control system was a clear signal of its level of organizational support for the salesperson. She noted that she had been less focused on performing for or staying with an organization that she did not feel was supportive of her.

Comments dealing with perceived organizational support were common throughout the interviews with the salespeople. The construct in the existing literature most reflective of these comments is perceived organizational support. Perceived organizational support is the salesperson's general perception concerning the extent to which the organization values employees' general contributions and cares for his or her well being (Eisenberger, Fasolo, and David-Lamastro 1990; Piercy et al. 2006). Several studies have confirmed the proposition that employees form a general belief concerning the organizations commitment to them, operationalized as perceived organizational support (Lynch, Eisenberger, and Armeli 1999). Despite its apparent relevance with sales controls, the impact of both process and output controls on salesperson perceived

organizational support continues to be an area in need of additional research (Piercy et al. 2006).

### Organizational Identification

Another set of responses seemed to focus on salespeople's identification with the organization. A 39-year old sales director discussed the importance of identification both from the view of the salesperson and the sales director.

“When I started in sales I worked in a commission only plan where they didn't reward me for anything except hitting my quota...As a director, this type of system is far less appealing to me. This type of control system encourages the salesperson as a mercenary stereotype...Even if our salespeople perform well under this type of plan, they don't feel like a part of the organization. They don't identify with who we are as a company and what we're trying to do the way people who are in the office every day do. Since we don't compensate them on anything but results, there is nothing stopping them from constantly going to the highest bidder, taking their accounts and contacts with them.” (#3, F)

She noted that she believed there was a link between organizational identification and performance that is critical at the salesperson level. She was particularly concerned about ways to build salesperson organizational identification since a growing percentage of her salespeople were working remotely and not in the office on a regular basis.

A 29-year old salesperson from a growing regional telecommunications provider also discussed his identification with the organization he worked for.

“I like the idea that I can make as much money as I want based on how hard I go out and work at it... I can identify with an organization that views salespeople as hunters, not gatherers. There are a lot of things I want for myself, for my family someday, and those things can't be had with just a paycheck every other Friday.” (#15, M)



This salesperson emphasized several times that he identifies with the organization largely because of the control system they have in place for him. He also suggested that this pushes him to perform at the highest possible level.

Several of the other respondents also mentioned the importance of salesperson organizational identification. Organizational identification has been studied in the marketing literature and defined as a state of psychological congruence between salesperson and organizational values (Ashforth and Mael 1989; Bhattacharya, Rao, and Glynn 1995; Thakor and Joshi 2005). Most empirical research on identification is conducted in organizational settings in which respondents are members of an identifiable organization (Brown, Barry, Dacin, and Gunst 2005). However, organizational identification has not been examined thoroughly in the sales control literature and no published study has looked at the influence that formal controls have on organizational identification.

#### Salesperson Compensation Plan Choice

The idea of salesperson compensation choice was also a frequently mentioned topic in the interviews. A 38-year old salesperson of a fast-growing, regional telecommunications provider spent a great deal of the interview time discussing salesperson compensation plan choice.

“We have one set plan here for all our salespeople that is very heavily weighted to commissions making for far more variability in my paycheck than I would like. I guess that’s easier for them to administer, but I know other companies are offering choices and it seems like a great way to me to please everyone. With choice you have more flexibility in how you want to be compensated, and I can tell you for a person like me without any choice in the matter, it is

kind of disheartening and makes me a little jealous of my colleagues at other companies.” (#9, M)

The salesperson noted that several former co-workers of his were now at companies such as Xerox that offer salesperson compensation plan choice and what a positive impact that choice had on his friend’s feelings directed toward the organization.

Interestingly, a 35-year old salesperson from a large carrier with customers throughout the world made the following complaint about her company’s lack of compensation plan choice.

“I think my base salary is very fair, but it is very frustrating to me that so little of our total compensation comes from commissions... Most of the people I work with think the same way. A high base salary is great, but I wish we would have some say. I am very confident in my ability to sell and wish more of my compensation was reflective of the work that I am putting in...I don’t think the majority of this company’s salespeople work as hard as me, but you won’t see much difference in our compensation” (#12,F)

She came back to the point of working harder than other salespeople and yet not seeing the rewards several times. She noted that she had a growing lack of trust in her organization and questioned how much they truly want her to succeed.

Finally, a 39-year old salesperson at a medium sized, national wholesale and retail telecommunications provider talked about how much she likes the compensation plan choice her company offered and how it played a role in her staying with the company.

“For several years the market just stunk. I went from literally not being able to call on a bad customer, to not being able to find a good one... There’s no doubt having some choice in my pay plan was a huge part of me still being here. I felt like the company understood that there were ups and downs outside of my control and that I am a valuable asset who still deserved to be paid well...I went from having a plan that was largely commission based, to one that was more heavily weighted in a base salary, back to one that is more balanced now that the market has improved...Getting paid based on

a plan that I felt was best for me and certainly reduced the tension I felt personally and increased my effort and focus. I am very pleased with the choices I have had in my seven years with \_\_\_\_\_ and the pay choices are a big reason I am still here and happy.” (#11, F)

This interview participant clearly appreciated the compensation plan choice and gave several examples of how that choice ultimately increased her performance.

Sales managers and executives also had differing thoughts on the subject of salesperson compensation choice. A 43-year old sales vice president at a fast-growing regional telecommunications provider seemed to favor the trend even though he had never participated directly in such a plan during his career as a salesperson.

“When I started twenty two years ago there wasn’t much choice. You sold or you didn’t keep your job...I love the idea of letting salespeople have some choice in how they are compensated. It gives a young person who is hungry for more money and a nice car the chance to have higher commission limits which encourages them to work harder which is good for our company. It also gives some of our more seasoned people the option to have more steady pay which allows us to keep some really good folks later on in their careers...I think choice helps the salespeople to feel empowered...The only thing we are trying to work through before offering some type of comp choice here is how to manage it.” (#4, M)

A 49-year-old sales manager from a large next generation carrier, who had risen from salesperson to management at the same company, also seemed very enthusiastic about salesperson compensation choice.

“It’s great for managers. Before we offered any choice, I bet 95% of people I worked with complained about the comp plan. People blamed it for why they left the company and questioned how it was really fairly rewarding them for their effort...As a manager, I don’t see near the issues now. If people don’t like their pay breakdown, they have the choice to modify it each year. If they don’t like what they see, they are a lot more likely to blame themselves as opposed to the company or the comp plan.” (#14, M)

Both of these interview participants noted the increase in the level of their salespeople's organizational identification, and that they believed it to be directly attributable to salesperson compensation plan choice. Interview participant #14 also noted that his salespeople believe he and the organization are more supportive of them because of their choice in the compensation plan.

Statements like these regarding the positives and negatives of salesperson compensation plan choice among salespeople and managers present an important finding, that is, different perspectives do exist within and across firms in whether and also to what extent salesperson compensation plan choice should exist.

From this dialogue it can be concluded that certain compensation characteristics such as salesperson compensation choice seems to have an effect on the subjective judgment salespeople have of their employer. It appears to impact several important sales control variables including salesperson perceived organizational support, organizational identification, and performance. To further illustrate this conclusion, a discussion is presented which includes informant responses focused on another important variable: the timing of incentive compensation payouts.

#### Incentive Pay Horizon.

A telecommunications sales manager interviewed summarized control systems with the statement "You can't please everyone, but an effective pay plan should please a lot of reps a lot of the time." Sales managers have stressed that the issue of fixed salary and incentive compensation may be less important than issues such as the time frame for incentive payouts (Cespedes 1990). A 44-year old sales manager for a large next

generation telecommunications provider discussed his companies switch from monthly to quarterly payouts and the benefits he was already seeing.

“It’s working really well... Shifting comp payouts to quarterly is such a small change administratively, but it’s one that got several of my salespeople back in the right frame of mind...I don’t care how well intentioned someone is, if they are looking at the possibility of commissions every month it really focuses them on the short term and in an industry like ours with a longer sales cycle, that is a problem... I think my salespeople are generally less stressed and more focused knowing that their incentive compensation will reflect an entire three months worth of their work rather than one.” (#10 M)

A 38- year old sales director at a fast growing regional telecommunications provider was equally excited anticipating his company’s switch to a quarterly incentive pay horizon.

“For as long as I have been here, people in other departments have always had their variable compensation paid out either annually or semi-annually with the reason being that we want to reward people for their work over an entire year for example...Certainly in sales commissions, bonuses, and other types of variable pay are more important, but fundamentally why should we not reward the same way over the same time periods... I think the longer periods between payouts, focuses people more on the long term possibilities for our company and themselves, rather than short term losses in their personal income because a big deal won’t close this month.”(#8, M)

A 35-year old salesperson from a large next generation telecommunications provider is also very supportive and believes the switch to longer incentive pay horizons has helped her.

“I think about the incentive pay less than I used too. That sounds strange when I say it, but my point is that it is easier for me now to focus on doing the best things for me and the company every day...The thought of losing potential money as the 31<sup>st</sup> of the month got close, always would get me nervous, concerned about losing money, and not always focusing on the best accounts, but rather the ones that could close the fastest... When you get to the end of a

quarter there is still some tension, but at least from my standpoint it is far less than when we had monthly payouts.” (#17, F)

A 61-year old sales vice president with a large international provider, based in the United States supported his company’s use of monthly payouts, but also noted that the company’s shorter payouts could lead to potential dysfunctional behaviors.

“I believe in monthly payouts. Salespeople are paid to always be selling and I think shorter payouts keeps them always pushing to close business... I do worry about ways to manipulate the comp plan. Our current plan has incentive pay caps for each month, and we have had a couple of instances where our salespeople were essentially putting orders off until the next month since they were capped for the current month... I don’t think these types of problems are common, but I worry that shorter payout cycles might encourage this type of thing.” (#2, M)

Several sales managers discussed incentive pay horizon and focused on the fact it was something management could impact. Two of the participants noted that they liked the fact that they could encourage more positive salesperson behaviors and performance by adjusting the incentive pay horizon. The first, a 47- year old sales manager with a large international carrier liked the idea that he could get positive results by adjusting the incentive pay horizon without having to adjust the salary/incentive mix for his salespeople. He was pushing his senior management to switch to a quarterly or semi-annual incentive pay horizon.

“Most salespeople I have been around are incented by one primary thing: money. I think spreading out the incentive payments to twice or four times a year will help people focus on the right behaviors for our customers and the firm...I also like the fact this is a relatively simple adjustment to make since we really won’t change how much

our salespeople make or can make. The debates about salary versus commission can continue on, but we can get improvements just by making this timing adjustment.” (#18, M)

Another 40-year old female sales manager supported her company’s switch to a longer incentive pay horizon to increase her salespeople’s long-term focus.

“When I was first in sales I had tunnel vision and only focused on the last day of the month. That kind of urgency is good to a point, but I can tell you the long term good of the company rarely crossed my mind. I was worried about how I was going to look on the 31<sup>st</sup> and what I was going to get paid on the 15<sup>th</sup> ...I’m glad we switched to quarterly payouts. I think my team is more focused on developing good short and long-term business...I did resist annual payouts for salespeople because I think that is too long. I like the idea of rewarding for a whole year, but in sales that would lead to people getting a huge check once a year with many of them leaving right after that knowing another bonus isn’t coming for another 365 days.” (#10,F)

The incentive pay horizon was widely discussed as an emerging topic with the vast majority of participants (salespeople, managers, and executives) supporting longer incentive pay horizons. Based on the tremendous importance placed on this subject by sales professionals who were interviewed, it appears to be a topic with both practical and theoretical implications that have not been explored in the marketing literature.

### General Discussion

The interviews described above suggest that salesperson perceived organizational support and organizational identification may be interesting constructs in studying boundary spanners and sales management controls. In addition, the interviews suggest that salesperson compensation plan choice and incentive pay horizon may moderate the

effect of formal controls on several important outcomes. The importance of these compensation issues comes across during the interviews and examples are shown where the use of various formal controls appear to influence a salesperson's level of perceived organizational support and organizational identification, as well as interact with the choice the salesperson had in that control system or when the timing of incentive payouts is set. Finally, the interviews also illustrated differences in performance as perceived by the salesperson and sales manager and the actual performance figures. While performance has consistently been examined as the primary dependent variable in sales control research, no published sales control study has measured performance as rated by the salesperson, sales manager, and objective sales data.

The results of the interviews suggest a possible mediating influence of salesperson perceived organizational support and organizational identification through which formal control influences salesperson performance, and this will be the focus of this dissertation. The interviews also suggest the potential influence of salesperson compensation plan choice and incentive pay horizon on the relationship between formal controls and salespeople's perceptions of the organization. Finally, this dissertation will attempt to provide a more complete picture of outcome performance through the use of self-evaluations, evaluation by knowledgeable other (sales manager), and objective quantitative data provided by the organization.

### Research Questions

Signaling theory suggests that individuals use various clues, dropped by the firm, to draw conclusions about the firm's intentions or actions (Srivastava and Lurie 2001).



Formal controls, salesperson compensation plan choice and incentive pay horizon could each provide a signal to salespeople about the firm's intentions that can impact salespeople's level of perceived organizational support and organizational identification. To the extent that formal controls can increase the level of perceived organizational support and organizational identification, will they be able to improve salespeople's performance? In addition, do emerging compensation characteristics provide a signal that influences or changes the relationship between formal controls, organizational identification, and perceived organizational support?

Social identity theory suggests that individuals derive their self-concept in part from their membership in certain social groups including the organization they work for (Tajfel 1982). Formal controls provide a mechanism that can facilitate behavioral consistency at work that has been shown to foster identification with the organization (Pratt 1998). Salespeople who identify with the organization enjoy the benefits of the organizations success and are likely to strive to perform in ways that maintain the success of the organization and as a result their self-esteem (Stets and Burke 2000). To the extent that formal controls influence the level of salespeople's organizational identification, will they result in an increase in salespeople's performance?

Thus, the research questions addressed in this dissertation include:

1. Are perceived organizational support and organizational identification constructs through which management control systems ultimately influence salesperson outcome performance?
2. To what extent do emerging compensation characteristics (salesperson compensation plan choice and incentive pay horizon) impact the

relationship between formal controls, organizational identification, and perceived organizational support?

### Contribution to the Literature

The primary contribution of this dissertation is better understanding the process under which management control systems ultimately influence salesperson performance. Previous models of control and compensation have advanced our understanding by taking an economic perspective in examining these relationships. However, the lack of research examining the social perspective of salesperson organizational identification and perceived organizational support is a significant gap in the literature.

Another important contribution is the investigation of the role that salesperson compensation plan choice and incentive pay horizon have on the relationship between sales force control systems, organizational identification, and perceived organizational support. Despite significant research into sales management control systems, these important issues facing managers in evaluating and controlling performance have been largely ignored. This dissertation contributes by conducting multiple qualitative interviews with salespeople, managers, and executives to get a clearer view of the issues most critical to sales force management in today's market. The consistent focus on salesperson compensation plan choice and incentive pay horizon throughout the practitioner interviews highlights the need for research into their effects. These variables and their relationships with other variables in the conceptual model have not been examined in the existing literature. Finally, I add to the understanding of the performance construct by measuring outcome performance at the salesperson (self-

evaluation), sales manager (evaluation by knowledgeable other), and objective quantitative data provided by the company (sales revenue, percentage of quota met). This study will provide managerial contributions as well by providing information that can guide managers when developing formal controls and incentive plans so that they maximize the short and long-term efforts of their sales force.

### Organization of the Dissertation

This dissertation is organized into five chapters. This chapter provided an introduction and brief overview of the research, the foundations of the topic under investigation, the primary research questions of this research, and the contribution to the literature. Chapter II is a review of the literature on sales force controls, performance, organizational identification, perceived organizational support, incentive pay horizon, and salesperson compensation plan choice. The chapter also provides a review of social identity and signaling theory and uses them as the theoretical bases for eleven hypotheses of the relationships among these constructs. Chapter III presents the research methodology used, and the methods used for data collection and analysis. A thorough presentation of the results is provided in Chapter IV. A discussion of the results of the analyses, theoretical and managerial implications of the findings, limitations of the study, and additional research needed is presented in Chapter V. Additional information, including detailed tables of data and the research survey instrument is included in appendices.

## CHAPTER II

The purpose of this chapter is to provide a review of the literature regarding performance, sales management control strategies, perceived organizational support, organizational identification, salesperson compensation plan choice, and incentive pay horizon. There are four sections to this chapter. The first section presents a review of the literature on the constructs in the conceptual model. It first examines the dependent variable “sales performance” followed by a review of the sales management control literature. This is followed by a review of the two proposed mediator variables, perceived organizational support and organizational identification. Finally, two emerging compensation characteristics, salesperson compensation plan choice and organizational identification are reviewed.

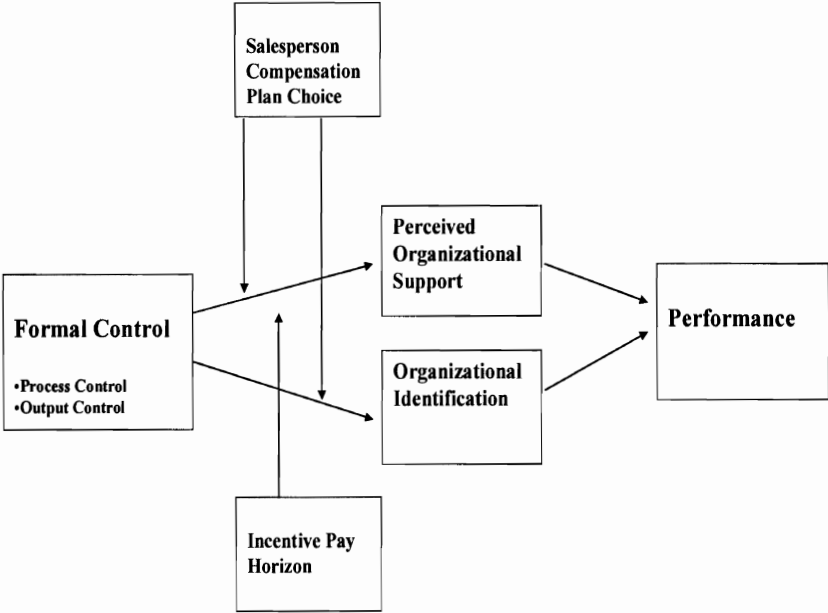
In the second section of the chapter, two main theoretical bases (social identity theory and signaling theory) that provide a foundation for the hypothesized relationships in the conceptual model are presented. The third section presents hypotheses about the relationships between the variables in the conceptual model. The final section briefly summarizes the chapter and leads into Chapter III.

Figure 2 presents the conceptual model of the study and illustrates the relationships of the variables investigated in the study.

FIGURE 2

SALESPERSON FORMAL CONTROL – PERFORMANCE MODEL

# Proposed Model



## Literature Review

### Sales Performance

Sales performance is the dependent variable in the model for this dissertation. Salespeople, as a consequence of their efforts and skills, produce results (e.g., sales, meeting quota targets, etc.) that comprise outcome performance. Salesperson outcome performance is chosen for the dissertation because of its bottom line implications, bringing an immediate managerial relevance to this study.

A plethora of research in recent decades has been devoted to salesperson performance and the variables that explain variation in performance. Yet, many questions regarding which factors actually improve performance remain unanswered (Szymanski 1988). Churchill et al. (1985) conclude that no single factor explains a significantly large amount of variation in sales performance.

A number of predictors of sales performance have been examined in the literature. In their meta-analysis of over 100 studies devoted to sales force performance, Churchill et al. (1985) found that overall sales performance is influenced by personal factors (e.g., age, height, sex, weight, race, appearance, etc.), skill, role perceptions, aptitude, motivation, and organizational variables. Harris (2001) summarized that very little of the variation in performance (as measured by self-report, peer reported, manager ratings, and objective measures) was accounted for, and Churchill et al. (1985) claim that very little variation may be explained by any single predictor. Since the time of this seminal meta-analysis, several additional variables that impact sales performance have been proposed and/or empirically examined in the literature. Role ambiguity (Brown and Peterson

1993), career stages (Cron and Slocum 1986), declarative knowledge (Szymanski and Churchill 1990), effort (Chowdhury 1993; Brown and Peterson 1994), control systems (Anderson and Oliver 1987; Challagalla and Shervani 1996), and organizational citizenship behaviors (MacKenzie et al. 1991;1993) have all been proposed and/or empirically studied as potential explanatory variables in sales performance studies.

Inconsistencies have also been found in the relationship between formal controls and performance. Process control has been found to be positively related to performance (Piercy et al. 2006), negatively related to performance (Oliver and Anderson 1994), and unrelated to performance (Jaworski et al. 1993). The same inconsistencies are also true of output control (Jaworski et al. 1993; Oliver and Anderson 1994; Lusch and Jaworski 1991).

The inconsistent results of previous research suggest that there may be moderating and mediating variables affecting the relationship between formal control variables and performance.

#### Sales Management Control Strategy

Gigliani and Bedeian (1974) noted that the basic concept of management control was first delineated in the early twentieth century, and that the first set of management control principles was specified by Urwick (1928). Urwick's five management control principles were: (1) the principle of responsibility, (2) the principle of evidence, (3) the principle of uniformity, (4) the principle of comparison, and (5) the principle of utility (Urwick 1928).

The next major formulation of management control principles was not published until 1958 (Koontz 1958), and contained eighteen principles of planning and control. The 1950's and 1960's saw the beginnings of the development of a science of management control theory and control models (Roller 1995).

Ouchi and Macguire (1975) ushered in the modern era of management control research by differentiating between two types of supervisory control: behavior control and output control. They proposed that these two control methods are not interchangeable, and in fact serve two different functions. Ouchi (1977) later went on to examine the appropriate conditions for the use of behavior or output control. He also introduced a third type of control he referred to as ritual control that existed where there was neither a means-ends relationships nor the availability of acceptable output measures. Ouchi's work provided much of the foundation as sales researchers began to develop the control literature and its application to marketing and sales.

Baldauf, Cravens, and Piercy (2005) note that existing knowledge on sales management control systems in marketing is based on two seminal conceptual developments. First, Anderson and Oliver (1987) drew from theoretical approaches in economics, psychology, and organization science to conceptualize a management control framework focusing on how behavior and outcome based sales force control systems affect salespersons motivation, cognition, behavior, and outcomes (Baldauf et al. 2005). Jaworski (1988) developed a conceptualization consisting of formal and informal dimensions of management control of marketing personnel (Baldauf et al. 2005). Jaworski's (1988) propositions were rooted to a great extent in the accounting and



management disciplines and were concerned with the antecedents and consequences of formal and informal control.

There are differences in how management control in marketing and sales has been conceptualized making it useful to examine alternative control philosophies. Anderson and Oliver (1987) define a sales force control system as an organization's set of procedures for monitoring, directing, evaluating, and compensating its employees. The construct based on this philosophy is considered as a continuum ranging from behavior-to outcome based control (Baldauf et al. 2005) Behavior-based sales management control is characterized by high levels of supervisor monitoring, direction, and intervention in activities with subjective and more complex methods of evaluating performance, typically centered on the salesperson's job inputs (Oliver and Anderson 1994). Salespeople operating under behavior-based control systems are compensated by a relatively high portion of fixed salary compared to incentive pay (Baldauf et al. 2005). This is reversed under outcome-based control where the salesperson's incentive pay (commission and/or bonus) accounts for the primary form of total compensation and there is very limited monitoring, directing, and evaluating activities by managers (Baldauf et al. 2005).

Alternatively, Jaworksi (1988) defines control as attempts by managers and other stakeholders within the strategic business unit to influence the behavior and activities of marketing personnel to achieve desired outcomes. Jaworski (1988) proposes formal and informal forms of management control. Formal control is comprised of output and process control, and is a written management initiated mechanism similar to behavior based control (Baldauf et al. 2005). Informal control includes the social, cultural, and

self-controls, and is an unwritten, worker initiated mechanism (Baldauf et al. 2005). The two primary types of informal controls in the literature are professional and self-control. Professional control represents the degree of interaction, feedback, and evaluation among peers. It stresses team unity and group decision-making in lieu of feelings of individual achievement. Self-control is where the individual takes pride in his or her work and feels a sense of commitment to performing at a high level. In essence, there is a self-control mechanism, representing the degree to which the employee takes pride in his or her work and takes responsibility for his or her job activities, at work. Since one of the goals of this dissertation is to provide managers guidance in influencing the controls they can impact, I will focus on formal controls (process and output) as defined by Jaworski (1988).

Baldauf, Cravens, and Piercy (2005) note that Anderson and Oliver (1987) focus on consequences of their formal control construct, whereas Jaworski (1988) relates the formal and informal controls in use to antecedents and consequences. Numerous articles have followed using either the Anderson and Oliver (1987) (i.e., Roberston and Anderson 1993, Oliver and Anderson 1994, Babakus et al. 1996, Krafft 1999) or the Jaworski (1988) (i.e., Jaworski and MacInnis 1989, Jaworksi, Stathakopolous, and Krishnan 1993, Challagalla and Shervani 1996, Cravens et al. 2004) conceptualization of sales management control.

Heavy research emphasis has been directed to investigating the effects of sales management control systems on salesperson characteristics and behaviors including performance. Table 2 summarizes these results. For example, Jaworski and MacInnis

(1989) surveyed 379 U.S. senior marketing executives and found that self-controls reduced dysfunctional behavior.

Agarwal and Ramaswami (1993) used the Jaworski (1988) control model in their study of 300 U.S. marketing professionals. They found that process control increases dysfunctional behavior, while self-control reduces dysfunctional behavior, job tension, and information asymmetry.

Jaworski, Stathakopoulos, and Krishnan (1993) applied the Jaworski and MacInnis (1989) control measures in their study of 379 U.S. marketing executives. Jaworski et al. (1993) found that high control (high formal, high informal) is associated with the highest job satisfaction. They also found no effect between the four control combinations (high formal-high informal, low formal-high informal, high formal-low informal, low formal-low informal) and salesperson performance.

Ramaswami (1996) used 318 AMA members as a sample and found that both output and process control are positively related to dysfunctional behavior. Cravens et al. (2004) also used the Jaworski (1988) conceptualization of control in their study of 1,042 U.S. salespeople. Their research found that salespeople who work under a high control system have higher levels of job satisfaction and performance compared to salespeople working under bureaucratic, clan, and low control combinations.

The Anderson and Oliver (1987) and Jaworski (1988) conceptualizations of control provide sound foundations for guiding sales management control strategy research and management action (Baldauf et al. 2005). Although the foundations underlying the control constructs do not display major differences, there are inconsistencies about the dimensionality of control and measurement issues (e.g.,

reflective versus formative indicator measurement models, unidimensional versus multidimensional constructs) (Baldauf et al. 2005). In their review of the sales management control literature, Baldauf et al. (2005) note that a major research question exists concerning our understanding of management control concepts, because there are no published research findings that examine the extent of similarity across different concepts of control and their consequences. Research directed at clearing up some of the measurement inconsistencies will hopefully also help clarify many of the inconsistent findings during the past twenty years of sales management control research. Challagalla and Shervani (1996, p.89) stress the need for this type of research by noting that “the conflicting evidence on the effects of control is particularly disturbing because controls are central to the functioning of every organization.”

There is clear lack of research examining the role of both process and output controls on either salesperson perceived organizational support or organizational identification. These two potential mediating variables may offer a new understanding of how formal controls influence performance.

TABLE 2  
SALES MANAGEMENT CONTROL SYSTEM RESEARCH

<b>Author</b>	<b>Antecedents</b>	<b>Consequences</b>	<b>Sample Size</b>	<b>Results</b>
Jaworski and MacInnis (1989); JM	Formal and Informal Controls	Dysfunctional Behavior, Job Tension, Information Asymmetry	379	Self-control reduces dysfunctional behavior. Formal controls reduce information asymmetry.
Agarwal and Ramaswami (1993); JAMS	Formal and Informal Controls	Dysfunctional Behavior, Job Tension, Information Asymmetry	300	Process control increases dysfunctional behaviors. Self controls and professional controls reduce dysfunctional behavior.
Jaworski et al. (1993); JM	Formal and Informal Controls	Performance, Job Satisfaction, Role Ambiguity	379	No effect was found between any of the four control combinations on performance.
Oliver and Anderson (1994); JM	Formal Controls	Performance, Job Satisfaction, Motivation, Cognitions/Capabilities, Affects/Attitudes	347	Behavior based control affects capabilities and motivational states, but not performance outcomes.
Challagalla and Shervani (1996); JMR	Formal Controls	Salesperson Performance, Satisfaction with Supervisor	270	Output rewards and capability punishments lower performance of salespeople.
Ramaswami (1996); JM	Formal and Informal Controls	Dysfunctional Behaviors	318	Output and Process controls are positively related to dysfunctional behavior.
Krafft (1999);JM	Environmental and Company Variables	Formal Controls	224	Behavior based control is positively related to environmental uncertainty.
Atuahene-Gima and Li (2002); JM	Formal Controls	Trust	405	Process control positively affects supervisee trust in Chinese sample. Output control negatively moderated the trust-performance relationship in US sample
Piercy et al. (2006); JAMS	Sales Manager Behavior Control	Perceived Organizational Support, Organizational Citizenship Behaviors,	214	Behavior control has a much stronger impact on OCB when acting through POS

Baldauf et al. (2005) summarize that there is no unified view of sales management control and that the two primary conceptualizations (Anderson and Oliver 1987; Jaworski 1988) have resulted in different measurement approaches. Baldauf et al. (2005) also stress that if agreement does not exist concerning the conceptualization of sales management control and the measurement of the construct, researchers will have a more difficult time assessing the relevance of the findings from future empirical studies.

### Organizational Identification

Sales activities take place within organizational contexts and as such, the values of this context can shape employee perceptions of activity importance (Thakor and Joshi 2005). The effect of organizational values and controls on salesperson perceptions is contingent on the extent to which salespeople accept these values and controls (Ashforth and Mael 1989; Dutton, Dukerich, and Harquail 1994). Pratt (1998) suggests that to the extent that organizations can influence salespeople to accept these values and controls, they can foster salespeople's identification with the organization. Organizational identification has been defined as the degree to which an individual perceives a oneness with an organization (Ashforth and Mael 1989; Bhattacharya, Rao, and Glynn 1995, Thakor and Joshi 2005), the degree of overlap of self-schema and organization schema (Bhattacharya and Sen 2003), and the degree to which the self is defined by the same attributes the individual believes define the organization (Dutton et al. 1994). Following from the work of Ashforth and Mael (1989), I define organizational identification as a state of psychological congruence between salesperson and organizational values and controls.

Brown, Barry, Dacin, and Gunst (2005) note that most empirical research on identification is set in organizational settings in which respondents are members of an identifiable organization (e.g., members/supporters of an art museum, Bhattacharya et al. 1995; company employees, Bergami and Bagozzi 2000; alumna of a particular school, Mael and Ashforth 1992). Organizational identification comprises three components: internalization of beliefs, loyalty, and continuance commitment (Brunetto and Farr-Wharton 2002).

Research suggests that high organizational identification enhances employees' job satisfaction (Mael and Tetrick, 1992). According to Mael and Tetrick (1992) when employees internalize their beliefs, they are likely to integrate organizational and personal goals, beliefs, successes, and failures. As such, employees with strong organizational identification are likely to be emotionally attached to that organization (Shore et al. 1993). In addition, such employees are likely to be very loyal towards the organization, although loyalty is usually a reciprocal construct whereby each party benefits from mutual concern for the other (Beckham, 1995).

Thakor and Joshi (2005) summarize that the commitment to fulfilling the long-term needs and wants of customers is now a commonly held organizational value across the industrial landscape. Thakor and Joshi (2005) argue that when organizational identification is high, salespeople will regard customer oriented selling as an important activity, which in turn shapes their belief that they will be satisfied and experience the feeling of accomplishment upon successful completion of their sales tasks. This construct is increasingly important in sales management since salespeople are working remotely at an increasing level, and their manager becomes a representative of the

organization. Sales managers who employ considerate leader behaviors (Boles et al. 2001) and provide regular and constructive feedback (Jaworski and Kohli 1991) can enhance the salespersons identification with the organization (Thakor and Joshi 2005). This is especially important since these actions are directly in the sales manager's control and can have important impacts on their salespeople and the organization.

### Perceived Organizational Support

Following Eisenberger et al. (1990) and Piercy et al. (2006), I define perceived organizational support as the general belief employees form concerning the organizations commitment to them. Research suggests that to meet needs for approval, affiliation, and to judge the organization's readiness to reward increased effort, employees form a general belief regarding the extent to which the organization thinks highly of their contributions and promotes their welfare (Eisenberger, Huntingdon, Hutchinson, and Sowa 1986). Perceived organizational support has been found to be distinct compared to job satisfaction (Eisenberger, Cummings, Armeli, and Lynch 1997) and organizational commitment (Van Yperen, Van Den Berg, and Willering 1999). Nonetheless, Piercy et al. (2006) note that the constructs are related, in the sense that employee's commitment to the organization is strongly influenced by their perceptions of the organizations commitment to them (Hutchinson and Garstka 1996). Research suggests that perceived organizational support displays positive relationships with favorable training experiences (Masterson, Lewis, Goldman and Taylor 2000); supportive communication with immediate supervisors and top management (Allen 1995); and clear guidelines to appropriate work behavior and job demands (Hutchinson 1997).



Perceived organizational support is thought to develop over time through multiple interactions between employees and their employers and to reflect the degree to which employees perceive that their organization is committed to them (Stamper and Johlke 2003). Research suggests that employee perceptions of organizational support develop through various organizational policies and practices (Guzzo, Noonan, and Elron 1994;). Empirically, Jones, Flynn, and Kelloway (1995) found that perceived organizational support is negatively related to work stress. In addition, Babakus, Cravens, Johnson, and Moncrief (1996) report that salespeople with high levels of perceived organizational support also experience less role conflict. Stamper and Johlke (2003) summarize firms that care about employee welfare and value work contributions are likely to send signals of support to employees by eliminating work factors associated with both role conflict and role ambiguity.

#### Salesperson Compensation Choice

The issue of salesperson compensation choice has not been examined in the academic literature. Trade journals have recognized this trend and asked questions including “how often do your salespeople like to receive their commissions - monthly or quarterly?” or “what puts them into productivity overdrive -- lots of small rewards for small-step gains or a big payout for a big kill,”(Neuborne 2003). Trade magazines have also recently noted that choices are becoming the hallmark of an evolved and effective compensation system (Neuborne 2003).

The operational definition of choice is the freedom of selecting an alternative from a choice set instead of being assigned a given alternative from the same choice set

by an external agent (i.e., the organization or employer) (Botti 2002; Chang 2006). One's freedom to choose from among alternatives rather than being assigned an alternative has been found to be positively associated with individual well-being in studies in both psychology (Langer and Rodin 1976; Mills and Krantz 1979; Wortman and Brehm 1975) and consumer behavior (Botti 2004; Cranage and Sujan 2004; Hui and Bateson 1991). Research also suggests that the mere perception of a person having choice can have a positive impact on his/her satisfaction with the outcomes (Botti and Iyengar 2004; Chang 2006).

The idea of sales compensation plan choice has received attention in the sales trade press and by practitioners, but no published study has examined it and its relationship with formal sales management controls. As the number of companies, large and small, that offer some type of compensation plan choice increases, research must begin to examine the role this choice has on the relationships between sales controls and other important constructs.

### Incentive Pay Horizon

The incentive pay horizon is defined as the time between incentive payments (Coughlan and Narasimhan 1992). This differs from the sales performance horizon, which is defined as the time from initial sales contact to close (Coughlan and Narasimhan 1992). In many industries, including telecommunications, the sales performance horizon can be quite long. These types of situations can be problematic when a salesperson has private information about the likelihood of sales performance in the future (e.g., as a result of current period prospecting efforts), and if incentive payments are made over a

shorter horizon than that over which sales are made, the salesperson has an incentive to misrepresent the probability of closing future sales (Coughlan and Narasimhan 1992). Coughlan and Narasimhan (1992) examined incentive pay horizon by looking at four categories: monthly, quarterly, semiannually, and annually. They hypothesized that by more closely aligning the incentive pay horizon to the sales performance horizon, the firm can make the salesperson more responsible for the sales outcome of his/her sales efforts, even when it may take several months to see the outcome (Fudenburg, Holmstrom, and Milgrom (1990).

Joseph and Kilwani (1998) suggest that measuring and compensating performance over a longer time frame may signal to the salesperson that the organization is protecting him or her from temporary setbacks in sales performance, and thus, stretching the motivational power of bonuses over a longer period of time. Joseph and Kalwani (1998) found that salespeople in organizations who receive incentive compensation annually have significantly lower turnover rates than those in organizations that have a shorter incentive pay horizon.

In the next section of this chapter, I will review signaling theory and social identity theory, which provide the theoretical base for my hypotheses.

### Signaling Theory

According to Spence (1973), market signals convey private information to participants in the marketplace who would otherwise not have access to this knowledge. While signaling has been used to explain a variety of phenomena, research has focused primarily upon three targeted groups: consumers, competitors, and stockholders. For

example, the use of warranties (Grossman 1981), advertising (Nelson 1974) and pricing (Gerstner 1985) as signals of product quality directed at consumers has been examined. Milgrom and Roberts (1982) investigated the signaling effects of limit pricing as a deterrent to potential market entries and Bhattacharya (1979) studied the effects of dividend policy upon stockholders.

Much of the signaling research has centered upon the signal sender's intent. This has provided a means for examining the credibility or sustainability of the signal. In order for a signal to be credible and sustainable, the benefits to the signaler must outweigh the costs.

Alternatively, other signaling research has centered upon the perceptions of the signal receiver that are inferred from strategic activity. This view is consistent with Porter's (1980) interpretation of signals as any action providing direct or indirect information of a firm's private information.

Each of these streams of literature suggests that firms may take actions that, whether intended or not, serve as signals to various constituencies. Spence (1973) noted that signaling activities can occur either by design or by accident. Viewed in this way, many additional organizational activities, systems, and controls could be defined as conveying signals as long as they are perceived as communicating information.

Erdem and Swait (1998) noted that while marketplace signals are offered by the seller of a product as a source of information and to reduce risk, there are two key factors that must be present in order for the signal to work. The information provided by an organization must be deemed credible by the receiver of the signal and company sending the signal must be vulnerable to some type of sanction. If a buyer recognizes that a firm

will suffer (e.g., a decline in future sales) should the company provide a false claim of quality, a signal of quality will be considered credible (Jones 2004).

A less studied area within signaling theory is the role signals have on employees including salespeople. In his seminal work on recruitment and selection, Wanous (1992) pointed out that job seekers require complete and accurate organizational information to match their needs properly with organizational offerings. However, job seekers usually have limited information about organizations and must use bits and pieces of data to construct a view of what it would be like to work for an organization (Barber, 1998). Organizational characteristics have been shown to be indicative of personnel practices (Jackson, Schuler, & Rivero, 1989), and job seekers tend to use these characteristics as clues. This use of organizational attributes as predictors of working conditions is captured under the rubric of signaling theory. Signaling theory suggests that individuals use various clues, dropped by the firm, to draw conclusions about the firm's intentions or actions (Srivastava & Lurie, 2001).

Much of the marketing research into signaling theory has examined the role of signaling between firms. Marketing signaling has typically provided information beyond the particular marketing activity itself and can reveal insights into unobservable behavior (Heiser 2005). Signaling activities such as a new marketing campaign or a price reduction can indicate an aggressive new marketing strategy (Gerstner 1985). Other applications of signaling theory in marketing include distribution channel interactions (Desai and Srinivasan 1995) and new product announcements (Eliashberg and Robertson (1988). Rao, Qu, and Ruekert (1999) applied signaling theory in their study of unobservable brand quality through a brand ally.

While a substantial stream of literature exists on interfirm signaling (Heiser 2005), very little research has been focused on individuals or interpersonal signaling. Interpersonal signals can be complex with a receiver receiving a signal, interpreting it, and reacting accordingly (Heiser 2005). While it is logical to think that the type of formal controls implemented by an organization provide signals to salespeople, no published study has used signaling theory as a theoretical base to explain the effects of formal controls on important outcome variables such as salesperson perceived organizational support, organizational identification, and performance.

### Social Identity Theory

Social identity theory has frequently been used to study various organizational phenomena (e.g., Chatman et al. 1998, Riordan and Shore 1997, Thomas 1999, Tsui et al. 1992). Social identity theory maintains that in addition to a personal identity, the self-concept is also composed of a social identity (Tajfel and Turner 1985). Social identity consists of salient group classifications that, in turn, may be based on demographic categories, gender, or race, as well as membership in central organizations, such as clubs or religious, educational, or cultural institutions (Bhattacharya, Rao and Glynn 1997). According to Turner (1985), classification enables people to order the social environment and locate themselves and others within it.

Social identity theory draws from Festinger's (1954) social comparison theory, which suggests that individuals are driven to compare themselves with others who are similar or even slightly better on relevant dimensions (Abrams and Hogg 1990). These comparisons are generally made between in-groups and out-groups. As such, individuals

go through a process of identification that is a direct result of their desire to maintain a high level of self-esteem and a positive self-identity.

Furthermore, social identity theory suggests that people classify themselves into social categories on the basis of various factors, such as the organization they work for, and that membership in these social categories influences an individual's self-concept (Ashforth & Mael, 1989; Dutton, Dukerich, & Harquail, 1994).

In the management literature, social identity theory has been applied in research focused on the antecedents of identification such as organizational distinctiveness and outgroups salience that distinguishes organizations from other targets of identification. In the marketing literature, Bhattacharya and Sen (2003) drew on social identity theory to present a model that predicts enhanced identification when an organization is perceived to be distinctive, attractive, and salient. Social identity theory also suggests that people need not interact or even feel strong interpersonal ties to perceive themselves as members of a group (Brewer 1991). This could be important in the study of salespeople as more and more work remotely outside of the day-to-day personal interaction at the organizations offices.

### Hypotheses

Signaling theory suggests that the information provided by the organization to the salesperson must be deemed credible by the salesperson in order for a signal to work as a source of information and to reduce risk (Erdem and Swait 1998). Since formal controls are written management initiated mechanisms they are likely to be perceived as credible making the use of formal controls important signals sent by the organization in providing

information and potentially reducing risk.

Process controls emphasize procedures and behavioral activities in monitoring, evaluating, and rewarding salespeople (Baldauf et al. 2005). In the sales force context, process controls are exercised by encouraging, supporting, and reinforcing behavior (e.g. training, apprenticeships) aimed at the enhancement of skills and abilities, and by administering rewards on the basis of the performance of specified activities (Challagalla and Shervani 1996). Research suggests that perceived organizational support displays positive relationships with several of these process control examples including favorable training experiences (Masterson, Lewis, Goldman and Taylor 2000); supportive communication with immediate supervisors and top management (Allen 1995); and clear guidelines to appropriate work behavior and job demands (Hutchinson 1997). Piercy et al. (2006) recently found that sales manager behavior control plays an important antecedent role to perceived organizational support.

Signaling theory suggests that individuals use various clues, dropped by the firm, to draw conclusions about the firm's intentions or actions (Srivastava and Lurie 2001). Process controls provide a clue about a firm's intentions by ensuring that the salesperson will receive rewards as long as all process requirements are met (Atuahene-Gima and Li 2002). Consequently, process controls put the majority of the performance risk on the organization (Cravens et al. 1993) thereby sending a positive signal of the organizations concern, care, and support for salespeople. I suggest that organizations that reduce the performance risk of salespeople and reward salespeople based on the process requirements outlined will provide a signal of organizational support to their salespeople.

In contrast, output control represents a "hands-off" approach by management and



thus shifts substantial performance risk to the salesperson since output may be affected by environmental or company factors that are beyond his or her control (Oliver and Anderson 1994; Atuahene-Gima and Li 2002). I suggest that by increasing the salesperson's performance risk, output controls send a negative signal of the organizational support and concern for the salesperson. That is, the organization sends a signal that they support the salesperson only if he or she achieves desired performance outcomes regardless of the means, behaviors, and activities enacted by the salesperson. Therefore, I posit that:

**H1a: Higher levels of process control are positively related to salesperson perceived organizational support.**

**H1b: Higher levels of output controls are negatively related to salesperson perceived organizational support.**

Research suggests that as people participate in organizational activities, they develop a more salient identity related to the organization (Cardador and Pratt 2006). Pratt (1998) suggests that to the degree to which organizations can facilitate behavioral consistency at work; they can influence individuals' identity formation around organizational values and beliefs and thus foster identification with the organization. Therefore, rewards that serve to encourage behavioral consistency in organizations may serve to influence identification in individual employees by fostering the formation of organizationally relevant schemas (Cardador and Pratt 2006). Process controls provide these kinds of rewards and focus evaluation on the behaviors and activities the organization believes will lead to a given outcome (Jaworski and MacInnis 1989; Ouchi

1979). Although the proximate purpose of these process controls is to increase the likelihood that salespeople will be successful in securing business from customers, the process activities also reaffirm and strengthen salespeople's organizational identities.

Organizations that focus heavily on output controls evaluate a salesperson in terms of his or her results relative to set standards of performance, rather than specific behaviors (Merchant 1985; Jaworski and MacInnis 1989). Research suggests that when organizations are less able to directly provide individuals with rewards, such as financial incentives for specific behaviors, they lessen their control over individual behavior and weaken their chances to use the behavioral base for identification (Cardador and Pratt 2006). Since control over organizationally relevant behaviors is important for the process of identification (Ashforth 2001; Pratt 1998), organizations who are less able to directly provide individuals with rewards, such as financial incentives for behaviors, lessen their control over salesperson behavior and weaken their chances to use the behavioral base for identification (Cardador and Pratt 2006). Therefore I posit:

**H2a: Higher levels of process control are positively related to salesperson organizational identification.**

**H2b: Higher levels of output control are negatively related to salesperson organizational identification.**

Research suggests that firms that care about employee welfare and value work contributions are likely to send signals of support to employees (Stamper and Johlke 2003). This signal may subsequently result in an increase in the salespersons desire to perform at a high level (Stamper and Johlke 2003). According to the reciprocity rule, the recipient of benefits is morally obliged to recompense the donor (Gouldner 1960). Thus,

as salespeople perceive greater levels of organizational support, their sense of obligation to reciprocate with helpful behaviors towards the organization increases (Shore and Wayne 1993). Eisenberger, Fasolo, and Davis-Lamastro (1990) examined six occupations including brokerage firm clerks and manufacturing employees and concluded perceived organizational support was positively related to employee attendance, commitment, and performance. I suggest that this finding will extend to the context of business-to-business salespeople and that the stronger the signal of perceived organizational support to salespeople, the more likely they are to enact the behaviors and activities necessary to achieve higher levels of performance. Therefore, I posit that:

**H3a: Higher levels of salesperson perceived organizational support are positively related to salesperson performance.**

Because of the inconsistent findings of the direct relationship between formal controls and performance (Baldauf et al. 2005, Challagalla and Shervani 1996), I integrate the previous hypotheses and argue that formal control influences salesperson performance through its effect on perceived organizational support. In essence, to the extent that formal controls can increase the level of perceived organizational support, they will improve salesperson performance.

**H3b: Salesperson perceived organizational support mediates the effect of formal controls on salesperson performance.**

Social identity theory suggests that individuals derive their self-concept in part from their membership in certain social groups including the organization they work for (Tajfel 1982). Research suggests that the organization is an important source of the

salesperson's self-concept (Tajfel 1982) and that the successes and reputation of the organization contribute to the salesperson's self-concept (Underwood, Bond, and Baer 2001). Salespeople enjoy the benefits of the organizations success and enhance their self-esteem by comparing their organization to lesser quality organizations (Stets and Burke 2000). Salespeople are also likely to strive to perform in a way that maintains the success of the organization and as a result their self-esteem.

Thakor and Joshi (2005) argue that when organizational identification is high, salespeople will regard organization driven sales initiatives as an important activity, which in turn shapes their belief that the organization will reciprocate the feeling of accomplishment upon successful completion of their sales tasks. The increased level of organizational identification will influence salespeople to weigh their effort and focus through the lens of anticipated past and future exchanges. Consequently, I suggest that higher levels of organizational identification will intrinsically motivate salespeople to expend the effort necessary to have a positive impact on performance.

**H4a: Higher levels of salesperson organizational identification are positively related to salesperson performance**

Because of the inconsistent findings regarding the direct relationship between formal controls and performance (Baldauf et al. 2005, Challagalla and Shervani 1996), I integrate the previous hypotheses and argue that formal control influences salesperson performance through its effect on organizational identification. In essence, to the extent that formal controls increase the level of salesperson organizational identification it will result in an increase in salesperson performance.

**H4b: Salesperson organizational identification mediates the effect of formal controls on salesperson performance.**

The term salesperson compensation plan choice has been operationally defined as the freedom of selecting from a choice compensation set instead of being assigned a given alternative by the organization (Botti 2002). One's freedom to choose from among alternatives rather than being assigned an alternative has been found to be positively associated with individual well being in studies in both psychology and consumer behavior (Chang 2006; Botti 2004). Choice is often associated with a sense of mastery (Chang 2006) and personal responsibility (Rodin and Langer 1977).

Research suggests that when people perceive they can take responsibility for causing outcomes instead of attributing them to external factors they feel in control (Langer 1983). Salespeople with choice in their compensation plan can examine what is most important to them and make a decision that is most supportive of their personal goals. For example, if salespeople desire more stable income with less variability, they can choose a plan with a larger fixed salary component. This sends salespeople a signal that the organization's use of process control is supportive of their specific wants and needs. In much the same way, salespeople who want to work under a more output control system where they have less supervisor monitoring, a lower base salary component, and the potential to have a greater incentive payout feel that the organization's use of output control is supportive of their specific wants and needs. While output controls have been previously hypothesized to have a negative relationship with salesperson perceived organizational support, if salespeople choose to work under a more output control system then the organization's use of output control will provide a

signal that the organization is supportive of their judgment and career. Therefore, I posit that:

**H5a: When a salesperson has compensation plan choice, the positive relationship between process control use and salesperson perceived organizational support will be strengthened.**

**H5b: When a salesperson has compensation plan choice, output control will have a positive effect on salesperson perceived organizational support.**

Bhattacharya and Sen (2003) drew on social identity theory to predict enhanced identification when an organization is perceived to be attractive, distinctive, and salient. However, it is challenging for organizations to know what control characteristics are attractive and distinctive since employee interests are context dependent making it difficult for organizations to have full knowledge of the incentive system that will be most attractive (Kaplan and Henderson 2005). Salesperson compensation plan choice is beneficial since it helps organizations devise a control system that results in salespeople's perception of congruence between personal and company identities which provides individuals with self-definition and allows them to fulfill affiliation goals (Bhattacharya et al. 1995). I suggest that when organizations offer salespeople choice it sends a signal to salespeople that the organization values their goals within their personal context. For example, one of the salespeople interviewed defined himself as a "hunter" and noted that he identified with an organization that demands and rewards production. In this example, the firm's use of output controls has a positive effect on organizational identification because of the psychological congruence of the salesperson and organizations use of output control. I suggest that this signal induces positive feelings in salespeople which

reflect positively on their self-evaluation, which in turn provides a reaffirmation of the identity related to the organization (Callero 1985; Hoetler 1983). Therefore, I posit that:

**H6a: When a salesperson has compensation plan choice, the positive relationship between process control use and organizational identification will be strengthened.**

**H6b: When a salesperson has compensation plan choice, output control will have a positive effect on organizational identification**

Many sales managers have stressed that the issue of fixed salary and incentive compensation may be less important than issues such as the time frame for incentive payouts (Cespedes 1989). Coughlan and Narasimhan (1992) examined incentive pay horizon and hypothesized that by more closely aligning the incentive pay horizon to the sales performance horizon or buying cycle, the firm can make salespeople more responsible for the sales outcomes of their sales efforts, even when it may take several months to see the outcome (Fudenburg, Holmstrom, and Milgrom 1990). Joseph and Kilwani (1998) suggest that measuring and compensating performance over a longer time frame may signal to salespeople that the organization is protecting them from the longer buying cycle's common in many industries, and sharing the performance risk with them. By sharing in the performance risk, organizations send a positive signal of the organizations concern, care, and support for salespeople (Cravens et al. 1993). If the organization uses process controls, an incentive pay horizon that matches the typical buying cycle for the industry sends another positive signal of the organizations concern, care, and support for salespeople further strengthening the already positive relationship between process controls and perceived organizational support.

The impact of a longer incentive pay horizon is also important for organizations using output controls. Recall that output control shifts substantial performance risk to the salesperson because he or she is compensated on the basis of outcomes that may be beyond his or her control (Atuahene-Gima and Li 2002). A longer incentive pay horizon sends a signal that the organization is sharing in the risk, and thereby weakening the previously hypothesized negative relationship between output controls and perceived organizational support. That is, the influence of output controls on perceived organizational support will be less negative when salespeople have a longer incentive pay horizon. Therefore, I posit that:

**H7a: When salesperson incentive pay horizons are longer, the positive relationship between process control use and perceived organizational support will be strengthened.**

**H7b: When salesperson incentive pay horizons are longer, the negative relationship between output control use and perceived organizational support will be weakened.**

The proposed model and hypotheses presented in Chapter II provide a number of potential contributions to both the marketing literature and sales practitioners. Regarding the marketing literature, this model addresses a gap in the literature by examining how formal controls influence performance through its effect on perceived organizational support and organizational identification. In addition, I add to the literature by adopting signaling theory and social identity theory in examining the impact of sales control systems on performance. I introduce two emerging sales management constructs to the literature, salesperson compensation plan choice and incentive pay horizon, and examine their moderating effects in the formal control-performance relationship. Finally, I add to



the control literature by examining the influence of formal controls on a more complete performance construct by measuring self-reported, manager reported, and objective performance data.

The model presented in this chapter also has several managerial implications. First, it provides guidance into the impact different control strategies have on salespeople's perceptions of the organization. It also directs organizations to be aware of the powerful influence that offering salespeople compensation plan choice or changing the incentive pay horizon can have on salespeople's perceived organizational support and organizational identification. Finally, by understanding the linkages between perceived organizational support, organizational identification and performance, firms have a practical basis through which sales executives can potentially enhance performance.

Chapter III presents the research methodology I used, and the methods used for data collection and analysis.

## CHAPTER III

The purpose of this chapter is to describe the quantitative research methods that are used in this dissertation to test the hypothesized relationships in the preceding chapter. The chapter begins with a discussion of the research method, sample, and sampling method chosen for this study. The chapter then presents the measures for the constructs and other measures used in the study, and follows with a discussion of the survey instrument. Finally, the chapter provides the plan of analysis.

### Research Method and Design

To test the hypotheses developed in chapter two, a mail survey was conducted. This survey method was used for a number of reasons. First, it affords the respondents anonymity, as completed survey instruments are void of respondent identification. Second, the survey method provides an efficient use of limited time and resources. Third, it enables the respondents the flexibility to complete this survey as his/her time allows. Table 3 summarizes several studies that were conducted in business settings with salespeople and measured some of the same variables examined in this dissertation using the survey method (e.g., Oliver and Anderson 1994, Krafft 1999, Baldauf, Cravens, and Piercy 2001, Atuahene-Gima and Li 2002). Each of the studies shown in table 3 showed adequate reliability and validity and used sample sizes in the same range as the sample size used in this dissertation. Given the benefits of using the survey method documented

by studies focusing on the target population, the survey method is an appropriate choice for this dissertation.

TABLE 3  
SALES CONTROL RESEARCH USING SURVEY METHOD

---

<b>Author</b>	<b>Antecedents</b>	<b>Consequences</b>	<b>Sample Size</b>	<b>Response Rates</b>
Oliver and Anderson (1994)	Formal Controls	Performance, Job Satisfaction	n=347	66%
Krafft (1999)	Environmental Characteristics, Company Variables	Formal Controls	n= 224	24%
Baldauf, Cravens, and Piercy (2001)	Formal Controls	Performance	n= 301	20%
Atuahene-Gima and Li (2002)	Formal Controls	Trust	n=405	31%

---

### Industry Setting

The industry setting selected for this study is telecommunications. There are a number of reasons why this industry was chosen. First, telecommunications is an extremely important industry that plays an ever-increasing role in the world economy. The growing importance of the internet and the globalization of the worldwide economy through technology are two of the most notable examples.

Second, telecommunications sales organizations have seen tremendous success and failure all within the past decade. The Telecommunications Act of 1996 created an environment of increased competition for local and long distance services for a variety of

competitors including Regional Bell Operating Companies (SBC, BellSouth, Verizon, etc.), Cable Companies (Comcast, Cox, Time Warner Cable etc.) Next Generation Inter-Exchange Carriers (Level 3, WilTel, Global Crossing, etc.), and Competitive Local Exchange Carriers (McLeod, Citynet, Valor, etc.) could make a play for a share of the rapidly growing telecom market. This led to incredibly rapid growth in the entire industry, followed by a crippling recession filled with bankruptcies and layoffs, to a market today characterized by more thorough business models and consolidation. Telecommunications salespeople have a unique view in that most have experienced all of these very different market environments in their careers providing them with uncommon insight into the effects sales management control strategies have in a number of very different economic climates.

Third, telecommunications was chosen as the context for this research because telecommunications companies, especially those operating in the business-to-business area, have placed great importance on the customer's relationship with the telecom company. Since salespeople act as boundary spanners connecting these sought after customers with their organization, their role in this relationship development is critical.

Fourth, changes in regulation have contributed to telecommunications companies taking a more aggressive strategy regarding segmenting customers and marketing their products. These changes in regulatory governance over the industry provide the researcher the opportunity to evaluate actual sales practices to the guidelines prescribed by policy makers. In summary, this industry provides a dynamic context to explore what variables impact the relationship between the control strategies put in place by management and the behaviors, attitudes, and performance of their salespeople.

## Sample

The sample population for this study is business-to-business salespeople in the telecommunications industry. Telecommunication companies were selected from lists provided by an industry trade association (COMPTEL). I contacted each company either in person or via phone and obtained approval from each company's management. In addition, each sales manager was pre-qualified via phone. A roster of all the business-to-business salespeople was requested. To assist the sales manager contacts in each organization, I provided a sample memo/email that was sent out to all the salespeople requesting their participation in the study.

A total of 88 sales managers within 18 organizations committed to participating in the study. These organizations and sales forces are all in telecommunications, but sell over 60 different products to a wide variety of businesses. The salesperson sample in this study was just under 600 people. Only salespeople who had been with their organization a minimum of three months were eligible to participate.

## Measures

The measurement scales used in this dissertation for the primary constructs in the model are measurement scales that have been used and verified in previous research. This section provides a discussion of each of the measures and includes information about the source scale as well as any adaptation of the scale employed for this study. Items for the scales used in the dissertation are presented in figures throughout the section.

A sample survey is provided in the appendices that details the scale items used in this dissertation.

### Sales Performance

The dependent variable in the model is sales performance. In Chapter II, salesperson performance is defined as the salesperson's achievement of both quantity and quality sales objectives (e.g., Sujan, Weitz, and Kumar 1994). Behrman and Perreault (1982) discuss three distinct ways of measuring salesperson performance. The first is self-evaluation which is beneficial as the salesperson best knows the detail of many requirements of the job, how well he or she actually performs, and what could be accomplished (Behrman and Perreault 1982). This dissertation collected a self-evaluation measure adapted from a scale developed by Behrman and Perrault (1982) and shown to have acceptable reliability and validity in recent sales control studies (Baldauf and Cravens 2002). The sales performance scale is used with only minor adaptations that reflect the target population.

Since people tend to be overly generous when rating their own performance, Behrman and Perreault (1982) suggest measuring performance using the evaluation by knowledgeable others. Such evaluations can explicitly or implicitly consider different facets of job performance. Supervisors also reported on salesperson outcome performance using a slightly modified version of the same measure.

Finally, Behrman and Perreault (1982) summarize that it is compelling for sales researchers to rely on quantitative company data such as dollar and unit sales. They also note there can be quantitative measures such as the dynamics of industrial markets that

can be reflected in dramatic swings in sales volume. In this study, objective sales performance data was provided in the form of percentage of quota met. Percentage of quota achieved is defined as the total sales brought to a close by a salesperson relative to the sales organization's sales targets for that individual (Ahearne et al. 2004). Percent of quota is a strong measure of salesperson performance because it controls for differences across representatives, such as knowledge, experience, and territory size (Churchill, Ford, Hartley, and Walker 1985). The objective measure was obtained from company records over a 6-month period (two quarters) and is consistent with what has been used in academic research and company performance evaluations (Ahearne et al. 2004). The objective data is used to evaluate the conceptual model, and the perceptual data are presented in the correlation matrix to show consistency among the measures. Chapter IV will illustrate that when all three types of performance measures were analyzed, there was a significant correlation between all three measures of salespeople's performance. In addition, the dissertation will primarily focus on the objective sales performance data because of its relevance in sales research and to practitioners in the field.

## FIGURE 3

### SALES OUTCOME PERFORMANCE ITEMS

---

#### *Objective*

1. Percentage of Quota achieved over the previous six months.

#### *Salesperson (7-point, needs improvement- outstanding)*

1. I am producing a high market share for the company.
2. I am making sales of those products with the highest profit margins.
3. I am generating a high level of sales.
4. I am quickly generating sales of new products and services.

#### *Sales Manager (7-point, needs improvement- outstanding)*

1. Salesperson \_\_\_\_ is producing a high market share for the company.
2. Salesperson \_\_\_\_ is making sales of those products with the highest profit margins.
3. Salesperson \_\_\_\_ is generating a high level of sales.
4. Salesperson \_\_\_\_ is quickly generating sales of new products and services.

---

#### Formal Controls

In chapter Two, formal controls are defined as written, management initiated mechanisms designed to influence the probability that marketing personnel will behave in ways that support the stated marketing objectives (Jaworski and MacInnis 1989). As discussed in Chapter Two, two types of formal controls (process and output) are examined in this study. Both process control and output control are operationalized



using measures that were developed by Jaworski and MacInnis (1989) and modified by Ramaswami (1996) that have been used extensively in marketing research. Ramaswami (1996) reported both the output and process control measures to have  $\alpha = .85$ . Both the process and output control measures are used with only minor adaptations to better reflect the target population. The formal control items appear in Figure 4.

FIGURE 4

FORMAL CONTROL ITEMS

---

*Output Control (7-point, never-always)*

1. Specific performance goals are established for my job.
2. My immediate boss monitors the extent to which I attain my performance goals.
3. If my performance goals were not met, I would be required to explain why.
4. I receive feedback from my immediate superior concerning the extent to which I achieve my goals.
5. My pay increases are based upon how my performance compares with my goals.

*Process Control (7-point, never-always)*

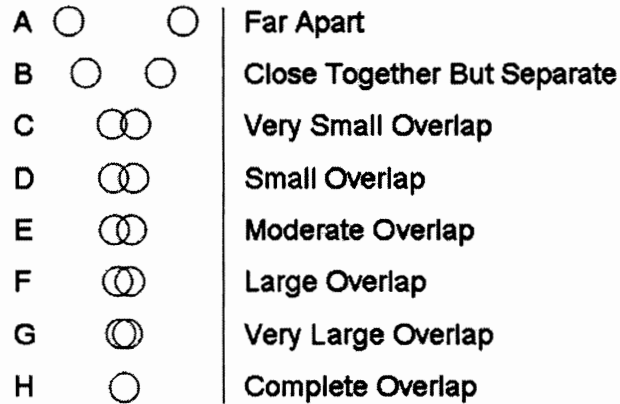
1. My immediate boss monitors the extent to which I follow established procedures.
2. My immediate boss evaluates the procedures I use to accomplish a given task.
3. My immediate boss modifies my procedures when desired results are not obtained.
4. I receive feedback on the process I use to accomplish my performance goals.
5. I must report the activities I do. (i.e., number of sales calls, number of prospects visited, etc.)

## Organizational Identification

In chapter two, organizational identification is defined as a state of psychological congruence between salesperson and organizational values and controls (Thakor and Joshi 2005). Bergami and Bagozzi (2000) argued that measures of identification, specifically the perceived degree of overlap between organization and individual identities, should be as direct as possible. In their research, they developed and validated a measure of identification that has been adapted and used in previous marketing research (Brown et. al 2005). The measure is a visual scale that consists of two sets of circles, one representing the organization's identity and one the individual's identity. These circles gradually overlap until there is complete overlap (only one circle). On this visual scale, respondents indicated which of eight levels of overlap best represents the level of overlap between their identity and the identity of their organization. This measure has been found to be reliable in previous marketing research (Brown et al. 2005). The items of the measure appear in Figure 5.

FIGURE 5  
ORGANIZATIONAL IDENTIFICATION MEASURE

---



### Perceived Organizational Support

In chapter two, perceived organizational support is defined as the salesperson's general perception concerning the extent to which the organization values employee's general contributions and cares for his or her well being (Eisenberger, Fasolo, and David-Lamastro 1990; Piercy et al. 2006). Perceived organizational support is operationalized using a scale adapted from Piercy et al. (2006) that has been used in sales and marketing research. The 9-item scale had a reported  $\alpha = .89$  (Piercy et al. 2006). The perceived organizational support scale is used with only minor adaptation to reflect the target population. The items of the measure appear in Figure 6.

FIGURE 6

PERCEIVED ORGANIZATIONAL SUPPORT ITEMS

---

(1=Strongly Disagree – 7=Strongly Agree)

1. The organization values my contribution to its well being.
  2. The organization strongly considers my goals and values.
  3. Help is available from the organization when I have a problem.
  4. The organization cares about my well-being.
  5. The organization is willing to help me when I need a special favor.
  6. The organization cares about my general satisfaction at work.
  7. The organization cares about my opinions.
  8. The organization takes pride in my accomplishments at work.
  9. The organization tries to make my job as interesting as possible.
- 

Incentive Pay Horizon

In Chapter Two incentive pay horizon is defined as the number of days between incentive payments (Coughlan and Narasimhan 1992). Incentive pay horizon is operationalized by using the same four categories used by Coughlan and Narasimhan (1992) monthly, quarterly, semiannually, and annually. Based on the interviews conducted and discussed earlier in this chapter, the choices are adapted to include bi-monthly, which appears in addition to the other main type incentive pay horizon used by practitioners. The categories comprising the various incentive pay horizons used in

previous research (Coughlan and Narasimhan 1992) and used by practitioners are listed in Figure 5. In addition to answering what incentive pay horizon they currently work under, salespeople were ask to provide the incentive pay horizon they would most prefer, and the incentive pay horizon they believe is most common in the industry.

## FIGURE 7

### INCENTIVE PAY HORIZON CATEGORIES

---

How often do you receive bonus or commission checks in your present job?

If you could change the time frame for bonuses and commissions in your present job, what would be your ideal?

Which time frame for receiving bonuses and commissions reflects the common standard in your industry?

1. Monthly (30 days)
  2. Bi-monthly (60 days)
  3. Quarterly (90 days)
  4. Semi-Annually (180 days)
  5. Annually (365 days)
- 

### Salesperson Compensation Plan Choice

Salesperson compensation plan choice has been defined in this dissertation as the salespersons freedom of selecting a compensation alternative from a choice set instead of

being assigned a given alternative from the same choice set. Salesperson compensation plan choice is operationalized using a scale that was adapted from Chang (2006) and used in recent marketing research (Chang 2006). The 3-item scale had a reported  $\alpha = .86$  (Chang 2006). The salesperson compensation plan choice scale is used with only minor adaptation to reflect the target population. The items of the measure appear in Figure 8.

FIGURE 8

SALESPERSON COMPENSATION PLAN CHOICE ITEMS

---

1. My organization allows me to have input on my final compensation plan.
  2. I had some choice over how my compensation plan was set-up.
  3. The efforts of my organization give me a sense of control over how my compensation plan will be administered.
- 

Background Variables

In addition to the measures listed above, I also collected data on the following background variables.

- Total Pay
- Education
- Length of Time with Firm
- Length of Time with Industry

- Length of Time with Current Supervisor
- Gender

### Analyses

To verify the psychometric properties of the measures, I used confirmatory factor analyses. I checked to make sure that fit indices indicate adequate fit for all models and report those results. Standardized loadings are presented in the Chapter 4. I checked to make sure Cronbach's alpha meets or exceeds the acceptable standards. I also present a complete summary of the descriptive statistics in Chapter 4.

To test for nonresponse bias I compared responses from the first wave against those from the second wave (Armstrong and Overton 1977) and found no significant differences in regards to performance, perceived organizational support, organizational identification, compensation plan choice, incentive pay horizon, output control, process control, size of firm, or total income. I also contacted fifteen non-respondents to further check that no significant differences exist between respondents and non-respondents. No significant differences were found between respondents and non-respondents on any of the variables mentioned above.

### Hypotheses Testing

I tested the hypotheses using regression. To test H1 and H3, I regressed process control on perceived organizational support and organizational identification. To test H2 and H4, I regressed output control on perceived organizational support and organizational

identification.

I tested for the mediation effects following the procedures outlined by Baron and Kenny (1986). In order to establish a mediation effect, the independent variable should have a significant effect on the mediator in the first regression and dependent variable in the second regression. The mediator should have a significant effect on the dependent variable in the third regression; while the significance of the independent variable should be reduced (I proposed partial mediation). To rule out the possibility of spurious relationships resulting from multicollinearity, I ran an additional regression of the dependent variable on the mediating variables alone. If the coefficient for the mediating variable is significant, then the possibility of significance due to a spurious relationship in the third regression is unlikely (Noble, Sinha, and Kumar 2002).

To test my hypotheses regarding the interactions between formal controls and salesperson compensation plan choice and incentive pay horizon (hypotheses 5,6 and 7), I used moderated hierarchical regression analysis (Aiken and West 1991). I estimated an initial regression equation including process control, output control, salesperson compensation plan choice, and incentive pay horizon as well as the control variables. In the second model, the hypothesized interactions were added. Variance inflation factors (VIF) were checked and were found to be below the cutoff of 10, which suggests that multicollinearity is not a problem. These results are shown in Table 4.



## CHAPTER IV

### Research Findings

This chapter presents the empirical results of the analysis used to test the hypotheses presented in the conceptual model. The first section presents descriptive statistics for the data. An assessment of the reliability of the model constructs is presented in the second section. Finally, hypothesis testing is presented in the third section.

### Examination of the Data

Before commencing with the analysis of the data, the data was examined for missing data, outliers, heteroscasticity, and normality. Missing data can be a problem if the missing data is not randomly distributed across cases and variables (Hair, Anderson, Tatham, and Black 1998) or if there is a substantial amount of missing data. Fortunately, there was very little missing data and a visual examination of the data set indicated that missing data was not a problem across cases. However, two surveys were eliminated due to an extreme amount of missing data – over half of the questionnaire was missing data. Test for outliers, heteroscasticity and normality were also conducted. Residual plots did show outliers for different variables, however there was little consistency as to which cases were outliers. Further examination of the response patterns in the questionnaires of the possible outliers found no inconsistencies in responses; hence no surveys were

eliminated from the data set for this reason. Multicollinearity did not appear to be a problem as the highest variance inflation factor was 2.301, which is well below the common cut-off limit of 10 (Kleinbaum, Kupper, and Miller 1988).

The final sample consists of 313 completed, usable surveys out of a possible 597 making the response rate 52%. The final sample consisted of salespeople across 18 telecommunications companies. Table 4 provides a summary of the descriptive statistics of the variables studied.

TABLE 4  
DESCRIPTIVE STATISTICS OF STUDY VARIABLES

<u>Variable</u>	<u>No. of Items</u>	<u>Mean</u>	<u>s.d.</u>	<u>Min.</u>	<u>Max.</u>	<u>VIF</u>
Process Control	5	4.68	1.26	1.40	6.80	1.721
Output Control	4	5.18	0.92	2.00	6.75	2.301
Perceived Org Support	9	4.70	1.32	1.56	7.00	2.064
Org Identification	1	3.94	1.71	1.00	7.00	1.678
Comp Plan Choice	3	2.99	1.47	1.00	7.00	2.079

The sample was 57.5% male with an average age 42.5 years old and an average income of \$73,000 per year. The sample had worked for their current supervisor for 1.5 years on average and their current organization for 3.3 years. The average salesperson had a pay mix of 74% fixed salary, 26% variable compensation. An examination of firm

level differences showed no significant differences across the eighteen companies in the sample. In table 7, a correlation matrix of the variables used in the study is presented.

### Confirmatory Factor Analysis

Next, as recommended by Churchill (1979) and Gerbing and Anderson (1988), the entire set of items were subjected to confirmatory factor analysis (CFA) to assess its congeneric properties. A test of the measurement model was performed by subjecting the measures to a sequence of confirmatory factor models. The final six-factor model CFA was acceptable. The CFA results demonstrate a significant Chi-square statistic of 1139.17 ( $df = 183, p = .000$ ) however, the model fit indices were acceptable. The comparative fit index (CFI), normal fit index (NFI), non-normed fit index (NNFI) and goodness of fit index (GFI) were examined to determine if the model had satisfactory fit. This model has a CFI = .93, NFI = .92, NNFI = .92, and a GFI = .88. Since high fit indices can give the false impression that the model explains much when it is really the result of freeing more parameters to be estimated from the data, I also examined the root mean square of approximation (RMSEA). This is a parsimony measure that accounts for potential artificial inflation due to the estimation of many parameters. Values between .05 and .08 are indicative of satisfactory fit of the model and values greater than .1 indicate very poor fit (Hair et al. 1998). The RMSEA for this model is .08. Collectively, these indices suggest a good fit of the measurement model to the data.

All factor loadings were high and loaded significantly as expected with negligible cross loadings. Composite reliability was calculated for each of the factors. Composite reliability (CR) is analogous to Cronbach's alpha and used to assess reliability in SEM.

The composite reliability for all factors exceeded standards recommended by Fornell & Larcker (1981), providing additional support for the reliability of the study scales.

TABLE 5  
FULL MEASUREMENT MODEL RESULTS

Construct	Standardized Loading	t-value*	Construct Reliability	AVE
Process Control (PROC)			.85	.65
PC1	.63	11.90		
PC2	.67	13.19		
PC3	.87	19.53		
PC4	.51	8.49		
PC5	.89	20.16		
Output Control (OUTP)			.69	.52
OC1	.44	7.60		
OC2	.43	7.45		
OC4	.75	14.65		
OC5	.71	13.58		
Perceived Organizational Support (POS)			.95	.82
POS1	.82	17.51		
POS2	.89	19.98		
POS3	.88	19.63		
POS4	.87	19.23		
POS5	.75	15.56		
POS6	.87	18.97		
POS7	.89	20.14		
POS8	.83	18.00		
POS9	.73	14.95		
Compensation Plan Choice (CHOIC)			.92	.89
CHO1	.91	20.57		
CHO2	.87	19.07		
CHO3	.91	20.55		

\* all estimates significant with  $p < .05$ .

Model fit:  $\chi^2 = 1139.17$ ,  $df = 183$ ,  $GFI = .88$ ,  $NFI = .92$ ,  $NNFI = .92$ ,  $CFI = .93$

In addition to reliability assessment, it is also important to demonstrate discriminant validity between study factors. One method of examining this involves the

calculation of the average variance extracted (AVE), which measures the ratio of variance to measurement error in the scale. Fornell and Larcker (1981) suggest that adequate measures should contain less than 50% error variance (i.e., AVE should be .5 or higher). The AVE estimates reported in Table 5 for each factor in the model exceeded the recommended .5 standard.

Scale Reliabilities

Process Control. Process control was measured using an existing five-item scale. The process control scale items, coefficient alpha, and item-to-total correlations from the current study are presented in Table 6. The relatively high coefficient alpha and item-to-total correlations indicate reliability of the existing scale.

TABLE 6  
PROCESS CONTROL SCALE:  
COEFFICIENT ALPHAS AND ITEM-TO-TOTAL CORRELATIONS

---

Process Control: Coefficient alpha = .846	<u>Item-to-Total Correlation</u>
1. My immediate boss monitors the extent to which I follow established procedures.	.76
2. My immediate boss evaluates the procedures I use to accomplish a given task.	.58
3. My immediate boss modifies my procedures when desired results are not obtained.	.73
4. I receive feedback on the process I use to accomplish my performance goals.	.48
5. I must report the activities I do. (i.e., number of sales calls, number of prospects visited, etc.)	.77

---

Table 7

	PROC	OUTP	POS	ORID	OPERF	CHOIC	IPH	GEND	EDUC	TOTPAY	T w/SUP	T w/FIR	T w/IND
PROC	.672**												
OUTP	.408**	.490**											
POS	.122*	.320**	.598**										
ORID	-.195*	.002	-.025	.126*									
OPERF	.354**	.394**	.579**	.370**	.222**								
CHOIC	.013	-.15**	-.521**	-.317**	-.143*	-.310**							
IPH	-.26**	-.18**	-.131*	.254**	-.085	-.280**	-.031						
GEND	.014	.071	-.149**	.048	.022	-.122*	.005	.037					
EDUC	.074	.075	.016	.047	-.092	.064	.017	.021	-.056				
TOTPAY	.004	.015	.040	.050	-.043	-.034	.052	.046	-.128*	.225**			
T w/SUP	-.022	-.067	.004	.048	-.076	.008	.015	.051	-.153**	.171**	.526**		
T w/FIR	-.082	-.077	.057	.078	-.060	.048	-.023	.008	-.178**	.220**	.369**	.698**	
Mean	4.682	5.178	4.704	3.947	90.984	2.997	2.885	1.428	2.843	2.323	17.926	40.092	58.594
Standard Deviation	1.263	.925	1.325	1.709	21.964	1.479	1.903	.515	.846	1.127	11.739	28.231	40.049

Descriptive Statistics

\*\* p < .01, \* p < .05.  
 PROC = Process Control  
 OUTP = Output Control  
 POS = Perceived Organizational Support  
 ORID = Organizational Identification  
 OPERF = Objective Performance  
 CHOIC = Salesperson Compensation Plan Choice  
 IPH = Incentive Pay Horizon  
 GEND = Gender  
 EDUC = Level of Education  
 TOTPAY = Total Pay  
 T w/SUP = Time with Current Supervisor  
 T w/FIR = Time with Current Firm  
 T w/IND = Time in Current Industry

Output Control. Output control was measured using an existing five-item scale. Due to its extremely low item-to-total correlation, item 3 was removed from the final analysis. The scale's four items, coefficient alpha, and item-to-total correlations from the current study are presented in Table 8. The coefficient alpha and item-to-total correlations indicate reliability of the existing scale.

TABLE 8  
OUTPUT CONTROL SCALE:  
COEFFICIENT ALPHAS AND ITEM-TO-TOTAL CORRELATIONS

---

Output Control: Coefficient alpha = .690	<u>Item-to-Total Correlation</u>
1. Specific performance goals are established for my job.	.42
2. My immediate boss monitors the extent to which I attain my performance goals.	.49
3. If my performance goals were not met, I would be required to explain why.	Removed
4. I receive feedback from my immediate supervisor concerning the extent to which I achieve my goals.	.47
5. My pay increases are based upon how my performance compares with my goals.	.53

---

Perceived Organizational Support. Perceived organizational support was measured with a nine-item scale designed to capture salespeople's general perception concerning the extent to which the organization values their general contributions and cares for their well being (Eisenberger, Fasolo, and David-Lamastro 1990; Piercy et al. 2006). Items, coefficient alpha, and item-to-total correlations from the current study for perceived organizational support are presented in Table 9. The relatively

high coefficient alpha and item to total correlations indicate reliability of the existing scale.

TABLE 9  
PERCEIVED ORGANIZATIONAL SUPPORT SCALE:  
COEFFICIENT ALPHAS AND ITEM-TO-TOTAL CORRELATIONS

---

Perceived Organizational Support: Coefficient alpha = .954	<u>Item-to-Total Correlation</u>
1. The organization values my contribution to its well being.	.79
2. The organization strongly considers my goals and values.	.86
3. Help is available from the organization when I have a problem.	.85
4. The organization cares about my well-being.	.86
5. The organization is willing to help me when I need a special favor.	.73
6. The organization cares about my general satisfaction at work.	.85
7. The organization cares about my opinions.	.87
8. The organization takes pride in my accomplishments at work.	.81
9. The organization tries to make my job as interesting as possible.	.71

---

Organizational Identification. Bergami and Bagozzi (2000) argued that measures of identification, specifically the perceived degree of overlap between organization and individual identities, should be as direct as possible. In their research, they developed and validated a measure of identification that has been adapted and used in previous marketing research (Brown et. al 2005). The measure is a visual scale that consists of two sets of circles, one representing the organization's identity and one the individual's



identity. These circles gradually overlap until there is complete overlap (only one circle). On this visual scale, respondents indicated which of eight levels of overlap best represents the level of overlap between their identity and the identity of their organization. This measure has been found to be reliable in previous marketing research (Brown et al. 2005).

Salesperson Compensation Plan Choice. Salesperson compensation plan choice was measured using an adapted three-item scale to capture the degree of compensation plan choice perceived by the salesperson. The salesperson compensation plan choice scale's items, coefficient alpha, and item-to-total correlations from the current study are presented in Table 10. The relatively high coefficient alpha and item-to-total correlations indicate the reliability of the adapted scale.

TABLE 10

SALESPERSON COMPENSATION PLAN CHOICE SCALE:  
COEFFICIENT ALPHAS AND ITEM-TO-TOTAL CORRELATIONS

---

Salesperson Comp Plan Choice: Coefficient alpha = .923	<u>Item-to-Total Correlation</u>
1. My organization allows me to have input on my final compensation plan.	.86
2. I had some choice over how my compensation plan was set-up.	.83
3. The efforts of my organization give me a sense of control over how my compensation plan will be administered.	.86

---

Incentive Pay Horizon. Incentive pay horizon was examined using a three-item measure that applied to the timing of salespeople’s bonus and/or commission payouts. The results indicate the sample in this study had two major categories of incentive pay horizons. Of the 313 salespeople in the sample, 153 (48.9%) had incentive pay horizons of 30 days and 160 salespeople (51.1%) had incentive pay horizons ranging between 90 days and 365 days. Table 10 shows the samples incentive pay horizons.

TABLE 11  
SALESPERSON INCENTIVE PAY HORIZON

<u>Total Sample = 313</u>	<u>Number of Salespeople</u>	<u>% of Total</u>
30 Days	153	48.9%
60 Days	0	0.0%
90 Days	16	5.1%
180 Days	18	5.8%
360 Days	126	40.3%

Performance. Salespeople’s performance in this study was measured using objective sales performance data that was provided in the form of percentage of quota met. Percentage of quota achieved is defined as the total sales brought to a close by a salesperson relative to the sales organization’s sales targets for that individual (Ahearne et al. 2004). Percent of quota is a strong measure of salesperson performance because it controls for differences across representatives, such as knowledge, experience, and

territory size (Churchill, Ford, Hartley, and Walker 1985). This measure was obtained from company records over a 6-month period (two quarters) and is consistent with what has been used in academic research and company performance evaluations (Ahearne et al. 2004). The average salesperson in this sample achieved 74% of quota with the range being 25% to 270% for the entire sample.

Salespeople’s performance was also measured using salespeople’s self-evaluation and supervisor evaluations of their salespeople’s performance. As shown in table 11 below, correlations between each of these three performance measures were significant. Due to the high correlation between the three performance measures and its relevance for sales researchers and practitioners, objective sales performance data is used as the primary performance measure in the hypothesis testing that follows.

TABLE 12  
CORRELATION MATRIX OF PERFORMANCE MEASURES

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	OBJ	MGR	SELF
OBJ	-		
MGR	.704**	-	
SELF	.605**	.555**	-

---

\*\*= p < .01

OBJ = Objective Sales Performance Data  
MGR = Manager Rated Performance  
SELF = Salesperson Self Rated Performance

## Hypotheses Tests

The hypotheses of the conceptual model proposed in chapter two of the study are analyzed using regression analysis. Given the nature of the conceptual model, separate regression models are used to test the different hypotheses.

As will be discussed later, the basic assumptions underlying regression analysis were tested using residual analysis (Hair et. al 1998). In addition, care was taken to assess multicollinearity. The results of these analyses are discussed after presenting the results of the hypothesis testing.

## Hypotheses

The hypotheses presented in chapter two are:

H1a: Higher levels of process control are positively related to salesperson perceived organizational support.

H1b: Higher levels of output controls are negatively related to salesperson perceived organizational support.

H2a: Higher levels of process control are positively related to salesperson organizational identification.

H2b: Higher levels of output control are negatively related to salesperson organizational identification.

H3a: Higher levels of salesperson perceived organizational support are positively related to salesperson performance.

H3b: Salesperson perceived organizational support mediates the effect of formal controls on salesperson performance.

H4a: Higher levels of salesperson organizational identification are positively related to salesperson performance.

H5a: When a salesperson has compensation plan choice, the positive relationship between process control use and salesperson perceived organizational support will be strengthened.

H5b: When a salesperson has compensation plan choice, output control will have a positive effect on salesperson perceived organizational support.

H6a: When a salesperson has compensation plan choice, the positive relationship between process control use and organizational identification will be strengthened.

H6b: When a salesperson has compensation plan choice, output control will have a positive effect on organizational identification.

H7a: When salesperson incentive pay horizons are longer, the positive relationship between process control use and perceived organizational support will be strengthened.

H7b: When salesperson incentive pay horizons are longer, the negative relationship between output control use and perceived organizational support will be weakened.

#### Hypothesis 1:

The first regression model tests the effects of process and output control on salespeople's level of perceived organizational support. As shown in Table 13, the overall regression model is significant ( $F=27.13$ ;  $p<.05$ ) with an R-square indicating that 46.1% of the variance in the relationship is explained by the model. The process control component of the model was significant as indicated by its unstandardized beta coefficient of .147 ( $t=2.39$ ,  $p < .05$ ), implying support for H1a. The output control component of the model was significant as indicated by its unstandardized beta coefficient of .476 ( $t=5.62$ ,  $p < .05$ ). While there was a significant effect, the direction of the effect was positive and opposite of that hypothesized. The results indicate that H1b is not supported. When the model includes the control variables of gender, time with supervisor, time in industry, time with firm, education and total pay, there is little change in the coefficients and significance levels of the model variables and the coefficients of

the control variables in the regression model are not significant with the exception of education.

TABLE 13  
REGRESSION ANALYSIS OF FORMAL CONTROLS WITH SALESPERSON  
PERCEIVED ORGANIZATIONAL SUPPORT

	Variable	Expected Sign	Coefficient beta	t	<i>p</i>
H1a	Process Control	+	.147	2.39	.018
H1b	Output Control	-	.476	5.62	.000
Control Variables	Gender		-.192	-1.65	.100
	Time w/Sup		.005	0.84	.404
	Time in Inds		.003	1.22	.225
	Timew/Firm		-.004	-1.17	.244
	Total Pay		-.071	-1.33	.183
	Education		-.221	-3.17	.002
Model F	27.134				
R. Square	.461				
Adj. R. Square	.444				

### Hypothesis 2

This hypothesis proposes that higher levels of process control are positively related with salespeople's organizational identification. Hypothesis 2b also proposes that higher levels of output control are negatively related to salespeople's organizational identification. Table 14 presents the results of regression analysis testing the hypothesis. As shown in Table 14, the overall regression model is significant ( $F=8.39$ ;  $p<.05$ ) with an R-square indicating that 21.5% of the variance in the relationship is explained by the

model. The unstandardized beta coefficient of process control of .179 is significant and in the direction hypothesized ( $t=3.09$ ,  $p<.05$ ). Hence H2a is supported.

The output control component of the model was significant as indicated by its unstandardized beta coefficient of .685 ( $t=5.22$ ,  $p < .05$ ). While there was a significant effect, the direction of the effect was positive and opposite of that hypothesized. The results indicate that H2b is not supported. When the model includes the control variables mentioned earlier, there is little change in the coefficients and significance levels of the model variables and the coefficients of the control variables in the regression model are not significant with the exception of gender.

TABLE 14  
REGRESSION ANALYSIS OF FORMAL CONTROLS WITH SALESPERSON  
ORGANIZATIONAL IDENTIFICATION

	Variable	Expected Sign	Coefficient beta	t	<i>p</i>
H2a	Process Control	+	.179	3.09	.002
H2a	Output Control	-	.685	5.22	.000
Control Variables	Gender		.810	4.524	.000
	Time w/Sup		-.001	-.036	.971
	Time in Inds		.003	.977	.329
	Timew/Firm		.005	.129	.897
	Total Pay		-.014	-.168	.866
	Education		.119	1.090	.277
Model F	8.39				
R. Square	.215				
Adj. R. Square	.189				

### Hypothesis 3: Mediation Effect of Perceived Organizational Support

H3a hypothesizes that higher levels of salesperson perceived organizational support are positively related to salesperson performance. The relationship between perceived organizational support and performance was not significant as indicated by its unstandardized beta coefficient of -.985 ( $t = -.841, p = .401$ ). There was no significant effect, and the results indicate that H3a is not supported.

H3b hypothesizes that salespeople's perceived organizational support mediates the effects of formal controls on performance. The hypothesis is tested using regression analysis following considerations recommended by Baron and Kenny (1986). Their approach recommends using four models to test mediation. The first tests formal controls effect on perceived organizational support, which has already been partially supported as presented in the analysis of hypothesis 1. The second tests the effect of perceived organizational support on salespeople's performance, which has not been supported as reported in the analysis of hypothesis 3a. The third tests the effects of formal controls on salespeople's performance and the fourth tests the effects on salespeople's performance when formal controls and perceived organizational support are all in the model. According to Baron and Kenny (1986), a mediating relationship exists when the following four conditions are found:

1. There is a significant relationship between formal controls and perceived organizational support.
2. There is a positive significant relationship between perceived organizational support and salespeople's performance.



3. There is a significant relationship between formal controls and salespeople's performance.
4. When formal controls and perceived organizational support are in the model together, formal controls will not have a significant relationship with salespeople's performance and perceived organizational support will have a significant relationship with salespeople's performance.

TABLE 15

MEDIATION EFFECT OF PERCEIVED ORGANIZATIONAL SUPPORT

Dependent Variable	Independent Variable	Expected Sign	Coefficient beta	t	p
POS	PC	+	.147	2.36	.018
	OC	-	.476	5.62	.000
	Gender		-.192	-1.65	.100
	Time w/Sup		.005	0.84	.404
	Time in Inds		.003	1.22	.225
	Timew/Firm		-.004	-1.17	.244
	Total Pay		-.071	-1.33	.183
	Education		-.221	-3.17	.002
PERF	POS	+	-.985	-0.84	.401
	Gender		-4.672	-1.79	.075
	Time w/Sup		.055	0.41	.682
	Time in Inds		-.023	-0.46	.648
	Timew/Firm		-.041	-0.59	.559
	Total Pay		-1.531	-1.27	.204
	Education		.708	0.44	.658

As shown in H3a, there is not a positive significant relationship between perceived organizational support and salespeople's performance violating condition #2 listed above. The analysis indicates a positive main effect of both process and output control on salespeople's levels of perceived organizational support, but that there is no

significant relationship between perceived organizational support and performance. The results indicate that H3b is not supported.

#### Mediation Effect of Organizational Identification

H4a hypothesizes that higher levels of salesperson organizational identification are positively related to salesperson performance. The relationship between organizational identification and performance was significant as indicated by its unstandardized beta coefficient of .076 ( $t = 1.98, p < .05$ ). However, R-square for the model indicates that only 1.3% of the variance in the relationship is explained by the model. These results suggest that, while H4a is supported, the linkage between organizational identification and performance is not as strong as anticipated.

H4b hypothesizes that salespeople's organizational identification mediates the effects of formal controls on performance. The hypothesis is tested using regression analysis following considerations recommended by Baron and Kenny (1986). Their approach recommends using four models to test mediation. The first tests formal controls effect on organizational identification, which has already been partially supported as presented in the analysis of hypothesis 2. The second tests the effect of organizational identification on salespeople's performance, which has been supported as reported in the analysis of hypothesis 4a. The third tests the effects of formal controls on salespeople's performance and the fourth tests the effects on salespeople's performance when formal controls and organizational identification are all in the model. According to Baron and Kenny (1986), a mediating relationship exists when the following four conditions are found:

1. There is a significant relationship between formal controls and organizational identification.
2. There is a positive significant relationship between organizational identification and salespeople's performance.
3. There is a significant relationship between formal controls and salespeople's performance.
4. When formal controls and organizational identification are in the model together, formal controls will not have a significant relationship with salespeople's performance and organizational identification will have a significant relationship with salespeople's performance.

Regression models for earlier hypotheses provide some of the data needed to test the mediating relationship hypothesis. All of the results of the regression models to test the mediation relationship are presented in Table 12 as model 1 (PC/OC – ORGID), model 2 (ORGID – PERF), model 3 (PC/OC – PERF), and model 4 (PC/OC + ORGID – PERF).

Model 1 results indicate support for the significant relationship between formal controls (process and output) and organizational identification. Model 2 results indicate that support for the positive relationship between organizational identification and salespeople's performance. The results provide support for the third condition that a relationship exists between formal controls and salespeople's performance with model 3 indicating a significant model ( $F = 15.37; p < .05$ ). Model 4 indicates that when formal controls are in the model with organizational identification the model is significant ( $F =$

11.40;  $p < .05$ ), and the relationship between organizational identification and performance remains significant ( $p < .05$ ). However, the beta coefficient for both formal controls has changed from model 3 and process control is still significant ( $p < .05$ ) and output control is marginally significant ( $p = .086$ ). These results violate the fourth condition for mediation. I further examined the potential relationships by looking at the effects of moderators and mediators simultaneously as outlined by Muller et. al (2005). This examination showed that H4b would not be supported under any of the moderating conditions.

TABLE 16  
 MEDIATION EFFECT OF ORGANIZATIONAL IDENTIFICATION

Dependent Variable	Independent Variable	Expected Sign	Coefficient beta	t	p
ORGID	PC		.179	3.09	.002
	OC		.685	5.22	.000
	Gender		.251	4.524	.000
	Time w/Sup		-.002	-.036	.971
	Time in Inds		.074	.977	.329
	Timew/Firm		.011	.129	.897
	Total Pay		-.009	-.168	.866
	Education		.060	1.090	.277
PERF	ORGID	+	2.203	2.640	.009
	Gender		-4.940	-1.884	.061
	Time w/Sup		.047	.348	.728
	Time in Inds		-.022	-.440	.661
	Timew/Firm		-.047	-.660	.509
	Total Pay		-1.554	-1.290	.198
	Education		.910	.566	.572
PERF	OC		3.340	1.724	.086
	PC		-6.931	-5.163	.000
	ORGID		2.528	2.981	.003
	Gender		-8.080	-3.090	.002
	Time w/Sup		.049	.379	.705
	Time in Inds		-.050	-1.048	.295
	Timew/Firm		-.021	-.308	.758
	Total Pay		-1.068	-.926	.355
	Education		.975	.634	.527

The overall results from the series of regression models suggest that organizational identification does not mediate the relationship between formal controls and salespeople's performance. These results do not support H4b.

#### Hypothesis 5: Salesperson Compensation Plan Choice as Moderator

This hypothesis postulates that when salespeople have compensation plan choice the relationship between process controls and perceived organizational support will be strengthened. As recommended by Aiken and West (1991), simple slope analysis was conducted to better understand the nature of this interaction. First, the overall regression model was tested and is significant ( $F = 81.65$ ;  $p < .05$ ). The simple slope technique overcomes the need to create subgroups from continuous variables. Simple slope analysis involves creating one low (i.e., one standard deviation below the mean), one moderate (i.e., mean), and one high (i.e., one standard deviation above the mean) conditional value of the moderator variable. After substituting the values of relevant unstandardized regression coefficients from the trimmed regression model, the equation is solved for the slope of the independent variable (process control) at the different levels of the moderator (salesperson compensation plan choice). The simple slopes at low, moderate, and high levels of salesperson compensation plan choice were 0.512, -0.090 and -0.075 respectively. These values indicate that at low levels of salesperson compensation plan choice, there is a statistically significant ( $p < .05$ ) positive relationship between process control and perceived organizational support. But at moderate and very high levels of compensation plan choice the relationship is non-significant ( $p = .599$  for

high choice,  $p = .298$  for moderate choice). These results show an interesting pattern, but do not support H5a.

TABLE 17

COMPENSATION PLAN CHOICE MODERATION EFFECTS ON THE FORMAL CONTROL / PERCEIVED ORGANIZATIONAL SUPPORT RELATIONSHIP  
LOW CHOICE

	Variable	Coefficient beta	Standard Error	t	<i>p</i>
H5a	Process Control	.484	.141	3.431	.001
H5b	Output Control	.284	.233	1.216	.230
Model F	17.021				
R. Square	.420				
Adj. R. Square	.395				

COMPENSATION PLAN CHOICE MODERATION EFFECTS ON THE FORMAL CONTROL / PERCEIVED ORGANIZATIONAL SUPPORT RELATIONSHIP  
MODERATE CHOICE

	Variable	Coefficient beta	Standard Error	t	<i>p</i>
H5a	Process Control	-.084	.081	-1.043	.298
H5b	Output Control	.590	.111	5.306	.000
Model F	20.033				
R. Square	.162				
Adj. R. Square	.154				

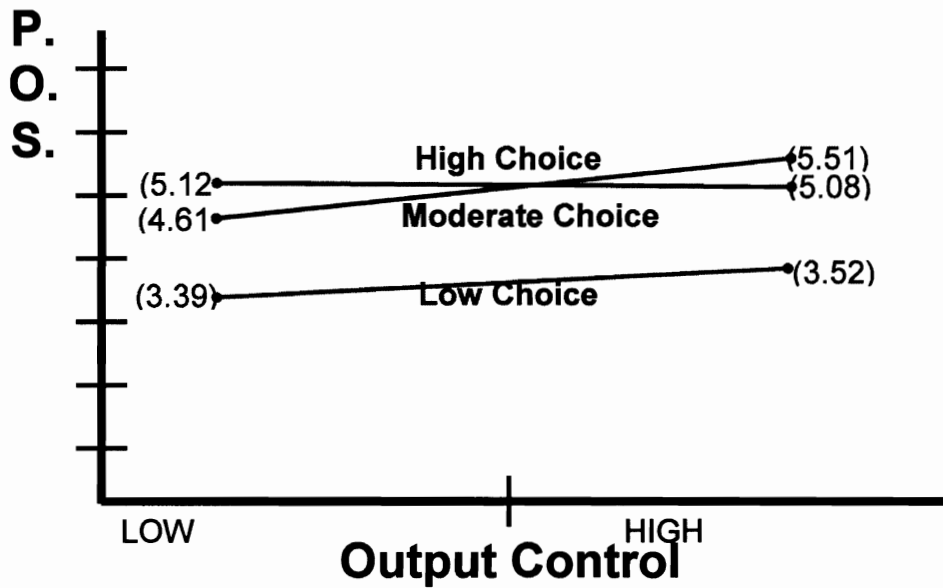
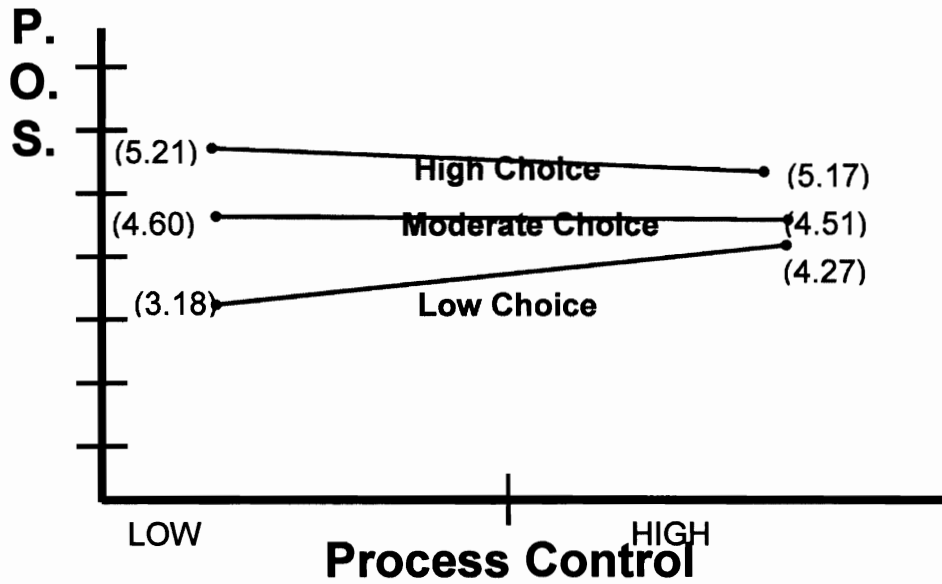
**COMPENSATION PLAN CHOICE MODERATION EFFECTS ON THE FORMAL  
CONTROL / PERCEIVED ORGANIZATIONAL SUPPORT RELATIONSHIP  
HIGH CHOICE**

	Variable	Coefficient beta	Standard Error	t	<i>p</i>
H5a	Process Control	-.087	.164	-.529	.599
H5b	Output Control	-.002	.156	-.010	.992
Model F	.143				
R. Square	.006				
Adj. R. Square	.002				

The hypothesis also postulates that when salespeople have compensation plan choice, the relationship between output controls and perceived organizational support will be positive. Following the simple slope analysis procedure listed above, the simple slopes at low, moderate, and high levels of compensation plan choice were 0.182, 0.458, and -0.001 respectively. These values indicate that at moderate levels of compensation plan choice, there is a statistically significant ( $p < .05$ ) positive relationship between output control and perceived organizational support. But at very low and high levels of compensation plan choice, that relationship is no longer significant ( $p = .992$  for high choice,  $p = .230$  for low choice). The results do not support H5b. Figure 9 graphically illustrates the nature of the moderation effects discussed above.

FIGURE 9

COMPENSATION PLAN CHOICE MODERATION EFFECTS ON THE FORMAL CONTROL / PERCEIVED ORGANIZATIONAL SUPPORT RELATIONSHIP





H6a postulates that when salespeople have compensation plan choice, the relationship between process control and organizational identification will be strengthened in a positive direction. The overall regression model was tested and is significant ( $F = 27.55$ ;  $p < .05$ ). Following the simple slope analysis procedure discussed above, the simple slopes at low, moderate, and high levels of compensation plan choice were 0.616, -0.481 and -0.112 respectively. These values indicate that at low levels of compensation plan choice, there is a statistically significant ( $p < .05$ ) positive relationship between process control and organizational identification. But the relationship is negative at moderate levels of compensation plan choice ( $p < .05$ ) and not significant ( $p = .452$ ) at high levels of salesperson compensation plan choice. The data suggests that as the level of compensation plan choice increases, the relationship between process controls and organizational identification is weakened or becomes negative. The results do not support H6a.

TABLE 18

COMPENSATION PLAN CHOICE MODERATION EFFECTS ON THE FORMAL CONTROL / ORGANIZATIONAL IDENTIFICATION RELATIONSHIP  
LOW CHOICE

	Variable	Coefficient beta	Standard Error	t	<i>p</i>
H6a	Process Control	.789	.223	3.540	.001
H6b	Output Control	-1.019	.369	-2.764	.008
Model F	6.408				
R. Square	.214				
Adj. R. Square	.181				

**COMPENSATION PLAN CHOICE MODERATION EFFECTS ON THE FORMAL  
CONTROL / ORGANIZATIONAL IDENTIFICATION RELATIONSHIP  
MODERATE CHOICE**

	Variable	Coefficient beta	Standard Error	t	<i>p</i>
H6a	Process Control	-.638	.107	-5.949	.000
H6b	Output Control	1.176	.146	8.044	.000
Model F	32.761				
R. Square	.245				
Adj. R. Square	.237				

**COMPENSATION PLAN CHOICE MODERATION EFFECTS ON THE FORMAL  
CONTROL / ORGANIZATIONAL IDENTIFICATION RELATIONSHIP  
HIGH CHOICE**

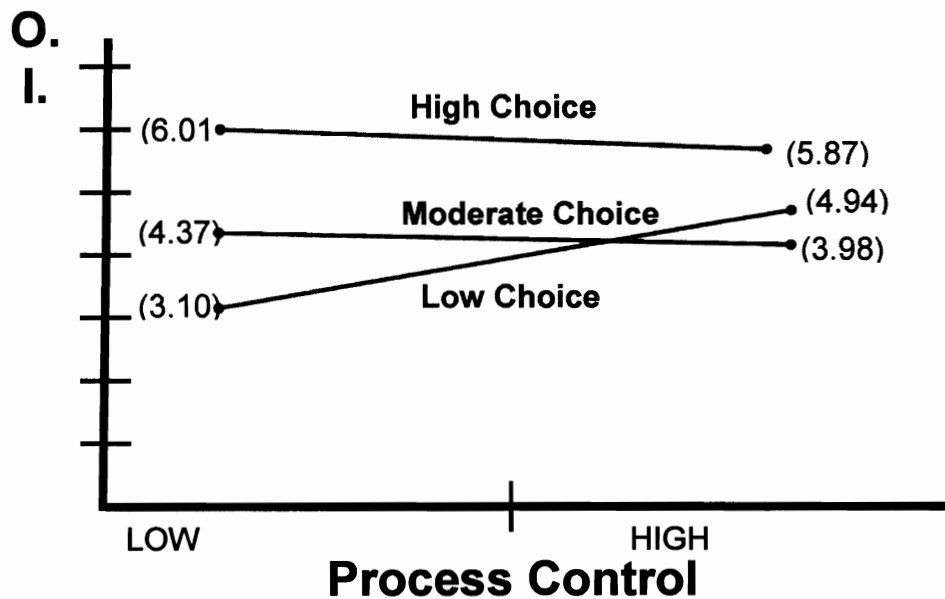
	Variable	Coefficient beta	Standard Error	t	<i>p</i>
H6a	Process Control	-.286	.377	-.759	.452
H6b	Output Control	-.003	.323	-.008	.994
Model F	.290				
R. Square	.006				
Adj. R. Square	.002				

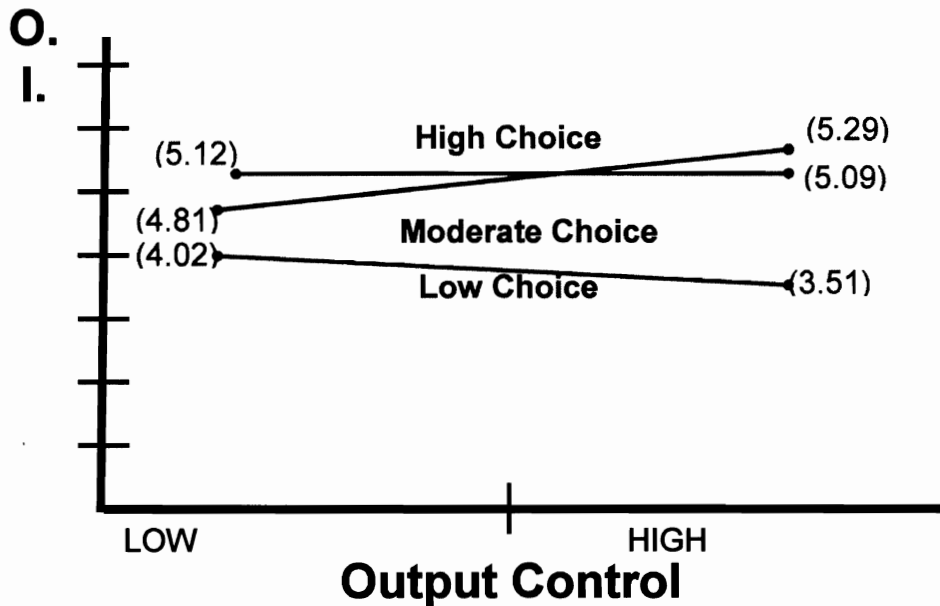
H6b postulates that when salespeople have compensation plan choice, the relationship between output control and organizational identification will be positive. Following the simple slope analysis procedure discussed above, the simple slopes at low,

moderate, and high levels of compensation plan choice were -0.481, 0.650, and -0.001 respectively. These values indicate that at low levels of compensation plan choice, there is a significant ( $p < .05$ ) negative relationship between output control and organizational identification. But as the level of compensation plan choice increases to moderate levels of choice, that negative relationship becomes a significant ( $p < .05$ ) positive relationship. These values indicate that at high levels of compensation plan choice there is no significant relationship between output control and organizational identification. These results partially support H6b. Figure 10 graphically illustrates the nature of the moderation effects discussed above.

FIGURE 10

COMPENSATION PLAN CHOICE MODERATION EFFECTS ON THE FORMAL CONTROL / ORGANIZATIONAL IDENTIFICATION RELATIONSHIP





Hypothesis 7: Incentive Pay Horizon as Moderator

Hypothesis 7a postulates that when incentive pay horizons are longer, the positive relationship between process control and perceived organizational support will be strengthened. Since the incentive pay horizons within the present sample clearly reflect two groupings (30 days and 90 days or more), moderation is tested using the procedures outlined by Baron and Kenny (1986). The regression analysis shows that there is a significant positive relationship between process controls and perceived organizational support for salespeople with incentive pay horizons of 30 days ( $B = .407$ ;  $t = 5.51$ ;  $p < .05$ ). However, the relationship is not significant for salespeople with incentive pay horizons of 90 days or longer ( $B = .002$ ;  $t = 0.24$ ;  $p = .486$ ). The results do not support H7a.

Hypothesis 7b postulates that when incentive pay horizons are longer, the negative relationship will be weakened. The regression analysis shows that there is a

significant positive relationship between output controls and perceived organizational support for salespeople with incentive pay horizons of 30 days ( $B = .805$ ;  $t = 6.10$ ;  $p < .05$ ). The relationship is also significant for salespeople with incentive pay horizons of 90 days or longer ( $B = .608$ ;  $t = 5.38$ ;  $p < .05$ ). The results do not support H7b.

#### Test of Regression Model Assumptions

When using multiple regression analysis, Hair et al. (1998) recommended assessing possible departures from the following major assumptions: 1) the linearity of the variables, 2) the constant variance of the error terms, 3) the independence of the error terms, and 4) the normality of the error distribution. Therefore, residual analyses were conducted for each equation in the model as suggested by Hair et al. (1998) to assess any departures from these assumptions.

I examined each of the regression equations and found similar results. First, examining the residual plots and partial regression plots showed that there are no departures from the linearity assumption. Second, examination of sequence plots of residuals showed no problems in meeting independence of error terms assumption for each of the regression equations. In addition, the Durbin Watson statistic for each equation falls within the recommended range of 1.50-2.50. However, the remaining two assumptions were found to be violated in the full regression model. The normal probability plots of residuals appeared to illustrate a violation and significant normality tests of residuals (Kolmogorov – Smirnov) provide additional evidence supporting the violation of the normality of error term distribution. Fourth, the residual and normality plots were inspected to ensure homoscedasticity among error terms (as recommended by

Hair et al. 1998). These plots appeared to reveal a departure from assumptions of constant variance. This is supported by the significant results of Levene's test of equality of error variance.

Data transformations were considered to correct these violations. As noted by Hair et al. (1998), nonnormality and nonconstant error variance frequently go hand in hand and usually remedies for nonconstant error variance also remedies non-normality. Hair et al. (1998) suggest transforming the dependent variable in the case that both of these assumptions were violated. As such, a number of compression transformations were employed on the dependent variable – Performance (i.e., square root, natural and tenth logarithm). Next, the regression models were re-estimated with each of the transformed dependent variables and residuals were analyzed to assess whether the desired remedies were achieved. None of the transformations were successful in dealing with the assumption violations. In addition, these transformations did not change any of the study results.

Finally, collinearity statistics were examined. As mentioned earlier in the chapter, multicollinearity does not appear to be a problem as no variance inflation factor (VIF) value exceeded 2.31 – well within the guideline of 10 recommended by Hair et al. (1998).

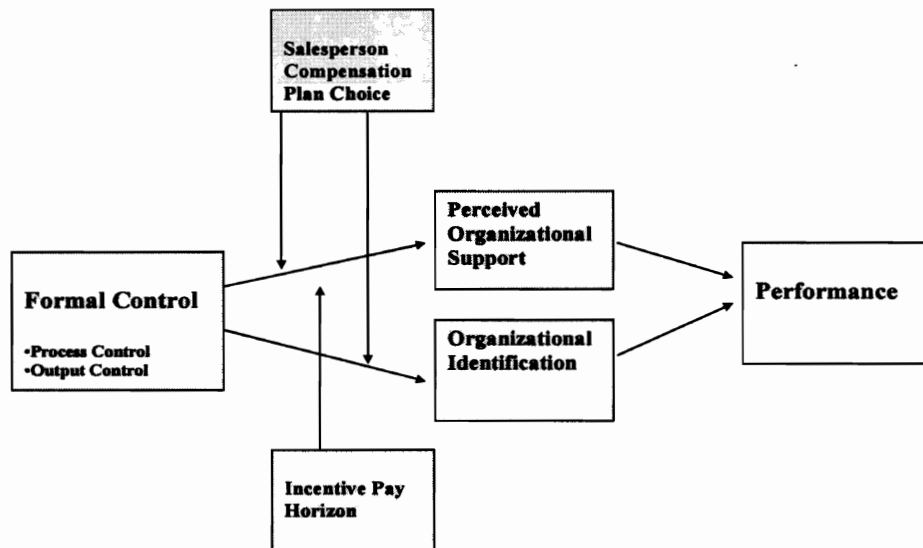
## CHAPTER V

### Discussion

This study conceptualizes, measures, and analyzes a model of the relationships of formal controls with sales performance. The model is presented in figure 2. The previous

FIGURE 2

## Proposed Model



chapter presented the results of the statistical analyses of the hypotheses of this conceptual model. This chapter presents a detailed discussion of the findings of this study. The discussion is presented in four sections. Presented first is a brief discussion

of the findings of the tests of the conceptual model. Second, the implications of the research and findings for researchers and managers are presented. The limitations of the study are investigated and presented next. This chapter concludes with recommendations for future research.

### Summary of Findings

There were several important research objectives of this dissertation. To accomplish these objectives, hypotheses were formed to test each of the relationships. All measures in the study were identified from previous research. These were subjected to reliability testing prior to hypothesis testing and support for each of the measures was found. This minimized the likelihood of misinterpretation of the hypothesis testing due to invalid or unreliable measures.

The first objective was to better understand the process under which management control systems ultimately influence salesperson performance. This study examined the potential mediating role of salespeople's organizational identification and perceived organizational support. Hypothesis 1 suggested that the increased use of process and output control has a positive effect on salespeople's levels of perceived organizational support. Hypothesis 2 suggests that the increased use of process and output control has a positive effect on salespeople's levels of organizational identification. Both of these findings are consistent with previous research that showed that salespeople who work under higher levels of control are generally more satisfied, display lower levels of role stress and emotional exhaustion, when compared with salespeople working in lower control combinations (Cravens et. al 2004). All of these findings indicate that



organizations that employ higher levels of both process and output controls will have salespeople who generally identify more closely with their organization and have higher levels of perceived organizational support.

Hypothesis 3 examined the potential mediating role salespeople's levels of perceived organizational support on the relationship between formal controls and salespeople's performance. The results did not support the hypothesized mediating role of perceived organizational support or the direct effect of perceived organizational support on performance. This finding suggests that while perceived organizational support is likely an important variable for salespeople (with potential impacts on turnover intentions or dysfunctional behaviors for example), it does not appear to have a direct effect on salespeople's performance.

Hypothesis 4 examined the potential mediating role salespeople's levels of organizational identification on the relationship between formal controls and salespeople's performance. The results did not support the hypothesized mediating role of organizational identification although there was a direct positive effect of organizational identification on performance. This finding suggests that while organizational identification has a direct positive relationship with salespeople's performance (plus potential impacts on job satisfaction or dysfunctional behaviors for example), it does not appear to mediate the relationship between formal controls and salespeople's performance.

Another important objective of this study was to examine the role that salesperson compensation plan choice and incentive pay horizon have on the relationship between formal controls, organizational identification, and perceived organizational support.

Despite significant research into sales management control systems, this is the first study to look at both of these variables with the same sample. Hypothesis 5 examined the potential moderating role of compensation plan choice on the relationship between formal controls and perceived organizational support. The study suggests that at low levels of compensation plan choice, there is a significant positive relationship between process control and perceived organizational support and a non-significant relationship between output control and perceived organizational support. The study also suggests that at moderate levels of compensation plan choice, the relationship between process control and perceived organizational support is non-significant, while the relationship between output control and perceived organizational support is significant. However, at high levels of compensation plan choice there is a non-significant relationship between both types of formal control and perceived organizational support. This finding suggests that process controls may be more effective in developing salespeople's perception of organizational support in low compensation choice settings, while output control may be more effective in moderate compensation choice settings. This finding also suggests that at very high levels of compensation choice, neither process nor output control have significant effects on perceived organizational support. This result has important implications for both researchers and managers that are discussed later in this chapter.

Hypothesis 6 examined the potential moderating role of compensation plan choice on the relationship between formal control and organizational identification. The findings provide an interesting contrast on the effect compensation plan choice has on process control as opposed to output control. This study suggests that at lower levels of compensation plan choice, the relationship between process control and organizational

identification is significant and positive. However, at higher levels of compensation plan choice, the relationship between process control and organizational identification is either non-significant or significant in a negative direction. This finding suggests that some compensation plan choice can have positive effects, but higher levels of choice can have a potentially negative impact when dealing with the process control/ organizational identification relationship.

The results from hypothesis 6b focusing on the relationship between output controls and organizational identification provide a very different picture. The findings suggest that at low levels of compensation plan choice, there is a negative relationship between output control and organizational identification. But as the level of compensation plan choice increases to moderate levels, that negative relationship becomes a positive relationship. The differing impacts of compensation plan choice on process and output controls is an interesting finding and provides important contributions for researchers in examining the specific effects of each individual type of formal control.

Hypothesis 7 examined the potential moderating role of incentive pay horizon on the relationship between formal control and perceived organizational support. While incentive pay horizon appears to have little impact on the relationship between output control and perceived organizational support (the relationship is positive and significant at all incentive pay horizons measured), it does appear to impact the process control/perceived organizational support relationship. The results suggest that at shorter incentive pay horizons (i.e., 30 days), the relationship between process control and perceived organizational support is significant and positive. However, at longer incentive pay horizons (i.e., 90-365 days) the relationship is no longer significant. These findings

indicate incentive pay horizons may be an important moderating variable as organizations attempt to increase their salespeople's levels of perceived organizational support through the use of formal controls. This result has important implications for managers and researchers that are discussed later in this chapter.

As discussed above, the empirical findings failed to support part of the proposed model. The failure to detect these effects could be the result of one or more reasons that will be discussed. One reason for the non-significant results could be attributed to violations of statistical assumptions for the regression model. As shown in a previous section, despite the rigorous steps taken to remedy the violations of these assumptions, I was not successful in dealing with these violations. According to Hair et al. (1998) violations of such assumptions can cause difficulty in detecting interaction effects even if they exist in the population.

While in the framework of the conceptual model I propose a number of variables and relationships that might influence salespeople's performance, the study might have excluded other relevant variables or potential relationships from the tested model. For example, while perceived organizational support did not have a statistically significant influence on salespeople's performance, a post hoc examination of the data found that it did have a significant and positive relationship with salespeople's organizational identification. This suggests that salespeople with higher levels of perceived organizational support will have higher levels of organizational identification, which when combined with the significant positive relationship detected between organizational identification and performance, make this an interesting area of study for researchers and

managers. Future research should explore this relationship and the potential effects it has on salespeople's performance.

In addition, the level of salespeople's compensation plan choice was examined as a potential moderating variable in the relationship between formal control and perceived organizational support and organizational identification. While several of the compensation plan choice moderating hypotheses were not supported, post hoc examinations revealed that compensation plan choice had a positive and statistically significant direct effect on perceived organizational support, organizational identification, and salespeople's performance. Future research should further explore the potential direct effects of compensation plan choice on these and other important sales outcomes as these results could yield important findings for both researchers and sales managers.

Finally, despite the fact that I used previously established measures that performed relatively well, the results of the model may be improved with further measurement refinement. Improvements to the measures used in this study, particularly the formal control measures, could yield potentially different findings that are more consistent with the hypothesized effects.

In summary, the dissertation finds no support for some of the proposed theoretical arguments related to formal controls and their influence on salespeople's organizational identification, perceived organizational support, and performance. When conducting further analysis, it is clear that several theoretical and measurement issues must be addressed. However, since the results of this analysis are inconclusive in nature, it is not clear which of, and to what extent, these issues caused the insignificant results. These

limitations open up several opportunities for future research that build on this study and provide a more rigorous test of the signaling and social identity theory based predictions.

### Implications

Based on the findings of this study, there are implications for researchers and managers. This section is divided into two parts, theoretical implications and managerial implications. Theoretical implications focus on the relevance of the study in the field. For managers, the section on managerial implications discusses the relevance of the findings to the practice of sales management and makes recommendations for managerial actions.

### Theoretical Implications

From a theoretical perspective, the present study:

1. Extends and links existing research in the areas of sales management control systems, perceived organizational support, and organizational identification using signaling and social identity theories as a theoretical base.
2. Introduces and operationalizes the new construct salesperson compensation plan choice and looks deeper into the impact of incentive pay horizons.
3. Empirically examines the conceptualized relationships in the theoretical model between formal controls and performance.

This study extends previous research by looking at the impact of both types of formal control (process and output) on salespeople's levels of perceived organizational support and organizational identification. The study found a significant positive relationship between formal controls and perceived organizational support as well as organizational identification, which are important findings for sales management. This study was also the first to use signaling theory in the area of sales management control research. Results indicate that salespeople do view their control and compensation plans as clear signals sent by the organization, and signaling theory provides a theoretical base in further studying the dynamic effects of management controls on salespeople.

This study introduces an adapted choice scale to measure the level of salespeople's compensation plan choice. This emerging trend in the area of sales management had not been tested previously in the academic sales and marketing literature. The study shows different levels of choice have differing effects on the relationships between each type of formal control, perceived organizational support and organizational identification. The study also suggests that high levels of compensation plan choice appear to remove the significant effects of formal controls on perceived organizational support and organizational identification. Further refinement and examination of the compensation plan choice scale is necessary, and this study provides researchers several interesting findings to develop through further research.

The large sample size and high response rate (52%) provide a thorough examination of the conceptualized relationships. This study empirically examined perceived organizational support and organizational identification as possible mediating variables in the relationship between formal control and performance. This study

suggests that while perceived organizational support and organizational identification appear to be increasingly important to sales managers, they do not appear to mediate the relationship between formal controls and salespeople's performance. This research adds to the understanding of these constructs and hopefully directs future research into other potential variables impacting the control/performance relationship.

### Managerial Implications

From a managerial perspective, the present study provides guidance for sales managers looking to increase the perceived organizational support or organizational identification of their salespeople. The study suggests that higher levels of formal control, both output and process, are positively related to higher levels of perceived organizational support and organizational identification. Managers should be aware of the signal that control systems can send to their salespeople, especially in an environment where increasing numbers of salespeople work remotely, and use those control systems effectively to increase the perception of organizational support and organizational identification among their sales force.

Another finding with managerial relevance involves the impact salespeople's compensation plan choice has on the relationship between formal controls and salespeople's organizational identification and perceived organizational support. The qualitative interviews in this study suggest that compensation plan choice is increasingly important to salespeople, and the study indicates that low or moderate levels of choice do have significant influence on these relationships that differ by the type of formal control used. For example, in low compensation plan choice settings, process control has a



significant and positive relationship with both perceived organizational support and organizational identification. However, those relationships are either negative or non-significant in situations with increased compensation plan choice. Output controls have a different effect as the relationship between output control and perceived organizational support and organizational identification is either negative or non significant at low levels of compensation plan choice. That changes in moderate compensation plan choice settings where output control has a significant positive relationship with both perceived organizational support and organizational identification. Finally, very high levels of choice appear to make the relationship non-significant regardless of the type of formal control used. This is very important guidance for managers and suggests that while managers should offer some compensation plan choice (i.e., slightly higher base salary/ slightly lower commission, or slightly higher commission potential/slightly lower base salary) depending on the specific type of formal control they want to implement, they should not offer extremely high levels of choice (i.e., all commission or all base salary) as those seem to erase any of the effects of formal control they are trying to achieve.

Finally, organizations may benefit by more closely aligning their incentive pay horizons with the specific type of formal control (process or output) they are emphasizing. If organizations are emphasizing process controls, it is important to recognize that those controls appear to have a significant positive effect on salespeople's perceived organizational support only when incentive pay horizons are shorter. For example, organizations using process controls looking to increase the level of their salespeople's perception of support from the organization, should operate with an incentive pay horizon that is relatively short (every month for example) if they want the

process controls they have implemented to send the significant positive signal to salespeople. The study suggests that if managers use longer incentive pay horizons (i.e., quarterly or annually) the positive relationship between formal controls and perceived organizational support may no longer be significant.

### Limitations and Future Research

First, this study is limited in its cross-sectional approach. The possibility for the reversal of some of the hypothesized relationships cannot be completely ruled out given the cross-sectional nature of the data. Future research should attempt to conduct a longitudinal study where the differences in relationships can be studied at various points in time providing greater support for causality. A field experiment whereby salespeople would be given some type of control system manipulation could provide particularly interesting results as the impact of different control strategies could be examined within the same company across different points in time.

The study's focus is also limited to one specific industry. While considerable variance exists within this group, I cannot completely rule out the possibility that results may differ across other industries. Future research should be directed to look at these relationships across various sectors of the economy.

This research did not examine the impact of formal controls, perceived organizational support, or organizational identification on other salesperson outcomes such as turnover intention or dysfunctional behaviors, and further research is needed. For example, how do salespeople's levels of perceived organizational support influence their

decisions to remain with the organization? Can salespeople's level of organizational identification impact their likelihood to engage in dysfunctional behaviors?

Finally, as many sales forces take on an increasingly global presence, this study is limited as all respondents work and live within the continental United States. Future research should examine these relationships in a multi-national context. Distinct differences may exist between an international sample and the domestic sample used in this study, that when examined could provide guidance to managers of international sales forces.

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**APPENDIX A:**  
**SURVEY COVER LETTER**



**APPENDIX B:**  
**SURVEY INSTRUMENT**

Circle the number that indicates your level of agreement with each of the following statements.

	Strongly Disagree	1	2	3	4	5	6	7	Strongly Agree
The organization values my contribution to its well being.	1	2	3	4	5	6	7		
The organization strongly considers my goals and values.	1	2	3	4	5	6	7		
Help is available from the organization when I have a problem.	1	2	3	4	5	6	7		
The organization cares about my well being.	1	2	3	4	5	6	7		
The organization is willing to help me when I need a special favor.	1	2	3	4	5	6	7		
The organization cares about my general satisfaction at work.	1	2	3	4	5	6	7		
The organization cares about my opinions.	1	2	3	4	5	6	7		
The organization takes pride in my accomplishments at work.	1	2	3	4	5	6	7		
The organization tries to make my job as interesting as possible.	1	2	3	4	5	6	7		
My organization allows me to have input on my final compensation (salary/commission) plan.	1	2	3	4	5	6	7		
I had some choice over how my compensation plan was set-up.	1	2	3	4	5	6	7		
The efforts of my organization give me a sense of control over how my compensation plan will be administered.	1	2	3	4	5	6	7		
If my performance goals were not met, I would be required to explain why.	1	2	3	4	5	6	7		
I receive feedback from my immediate supervisor concerning the extent to which I achieve my goals.	1	2	3	4	5	6	7		
My pay increases are based upon how my performance compares with my goals.	1	2	3	4	5	6	7		
My immediate boss establishes specific performance goals for my job.	1	2	3	4	5	6	7		
My immediate boss monitors the extent to which I attain my performance goals.	1	2	3	4	5	6	7		
My immediate boss monitors the extent to which I follow established procedures.	1	2	3	4	5	6	7		
My immediate boss modifies my procedures when desired results are not obtained.	1	2	3	4	5	6	7		
My immediate boss evaluates the procedures I use to accomplish a given task.	1	2	3	4	5	6	7		
I must report the activities I do (i.e., # of sales calls, # of prospects visited, etc.).	1	2	3	4	5	6	7		
I receive feedback on the process I use to accomplish my performance goals.	1	2	3	4	5	6	7		
The work I do on this job is very meaningful to me.	1	2	3	4	5	6	7		
I feel that I should take credit or blame for the results of my work.	1	2	3	4	5	6	7		
I like to do more than my share of the work at my job.	1	2	3	4	5	6	7		
Success or failure in my job is really my responsibility.	1	2	3	4	5	6	7		
I monitor my own behavior to maximize my performance.	1	2	3	4	5	6	7		
The department encourages cooperation among its members.	1	2	3	4	5	6	7		
Most of the members of my department are familiar with each other's work.	1	2	3	4	5	6	7		
The department fosters an environment where we respect each other's work.	1	2	3	4	5	6	7		
The department encourages job related discussions between members.	1	2	3	4	5	6	7		
When making important decisions, my supervisor considers my welfare.	1	2	3	4	5	6	7		
My supervisor is genuinely concerned about my success.	1	2	3	4	5	6	7		
My supervisor keeps my best interests in mind.	1	2	3	4	5	6	7		
My supervisor cares about me.	1	2	3	4	5	6	7		
My supervisor is knowledgeable about the telecommunications industry.	1	2	3	4	5	6	7		
I can count on my supervisor to deliver when promised.	1	2	3	4	5	6	7		
When I have an important job related question, I can rely on the answer my supervisor gives me.	1	2	3	4	5	6	7		
Whenever I have a job-related problem, I can count on my supervisor to come through for me.	1	2	3	4	5	6	7		
My supervisor follows through on promises.	1	2	3	4	5	6	7		
My supervisor is always honest.	1	2	3	4	5	6	7		
My supervisor can be counted on to what is right.	1	2	3	4	5	6	7		

Circle the number that indicates your level of agreement with each of the following statements.

	Strongly Disagree	1	2	3	4	5	6	7	Strongly Agree
I vary my sales style from situation to situation.	1	2	3	4	5	6	7		
I don't use the same approach with most customers.	1	2	3	4	5	6	7		
I typically use a wide variety of selling approaches.	1	2	3	4	5	6	7		
It is easy for me to adapt my presentation style.	1	2	3	4	5	6	7		
When I find that my sales approach is not working, I easily change to another approach.	1	2	3	4	5	6	7		
I modify my sales presentation if the situation calls for it.	1	2	3	4	5	6	7		
I change my sales approach from one customer to another.	1	2	3	4	5	6	7		
I consider myself to be very customer oriented.	1	2	3	4	5	6	7		
I enjoy interacting with customers.	1	2	3	4	5	6	7		
Customer orientation is one of my personal goals.	1	2	3	4	5	6	7		
Customer orientation is very important within my job.	1	2	3	4	5	6	7		
I keep customers best interests in mind.	1	2	3	4	5	6	7		
My supervisor encourages us to seek support from the marketing team within our company/business unit.	1	2	3	4	5	6	7		
My supervisor regularly stresses the importance of a collaborative relationship between sales and marketing.	1	2	3	4	5	6	7		
My supervisor makes a deliberate effort to ensure that we have access to marketing resources within our company/business unit.	1	2	3	4	5	6	7		
Our firm's marketing department provides our sales unit with a substantial amount of support.	1	2	3	4	5	6	7		
Our sales unit receives valuable assistance from our firm's marketing department.	1	2	3	4	5	6	7		
Our firm's marketing department expends a significant amount of effort assisting our sales unit.	1	2	3	4	5	6	7		
I know the right thing to do in selling situations.	1	2	3	4	5	6	7		
Overall, I am confident of my ability to perform my job well.	1	2	3	4	5	6	7		
I feel I am very capable at the task of selling.	1	2	3	4	5	6	7		
I feel I have the capabilities to successfully perform this job.	1	2	3	4	5	6	7		
Generally, I think this company has a good reputation in the community.	1	2	3	4	5	6	7		
Generally, I think this company has a good reputation in the industry.	1	2	3	4	5	6	7		
Generally, I think this company is actively involved in the community.	1	2	3	4	5	6	7		
Generally, I think this company has a good overall image.	1	2	3	4	5	6	7		
Generally, I think this company is known as a good place to work.	1	2	3	4	5	6	7		
Generally, I think this company has a good reputation among its customers.	1	2	3	4	5	6	7		
Competition in our industry is cutthroat.	1	2	3	4	5	6	7		
There are many "promotion wars" in our industry.	1	2	3	4	5	6	7		
Anything that one competitor can offer, the others can readily match.	1	2	3	4	5	6	7		
Price competition is a hallmark of our industry.	1	2	3	4	5	6	7		
One hears of new competitive moves very frequently.	1	2	3	4	5	6	7		

**"Imagine that one of the circles at the left in each row represents your own personal identity and the other circle at the right represents your organization's identity. Please circle which one case (A,B,C,D,E,F,G,H) best describes the level of overlap between you and your organization's identities."**

- A             Far Apart
- B             Close Together But Separate
- C        Very Small Overlap
- D        Small Overlap
- E        Moderate Overlap
- F        Large Overlap
- G        Very Large Overlap
- H       Complete Overlap

**How important are sales control and compensation systems in your evaluation of your employer.**

Not important at all      1      2      3      4      5      6      7      Very Important

**To what extent do sales control and compensation systems provide a signal of a company's intention toward their salespeople?**

Does not signal anything      1      2      3      4      5      6      7      Provides a very clear signal

**Please rate your own job performance. Remember that your answers are anonymous.**

	Needs Improvement				Is Outstanding		
	1	2	3	4	5	6	7
The market share I produce for the company.	1	2	3	4	5	6	7
The sales I make of those products with the highest profit margins.	1	2	3	4	5	6	7
The sales level I generate for the company	1	2	3	4	5	6	7
The speed at which I generate sales of new products and services.	1	2	3	4	5	6	7
My overall job performance.	1	2	3	4	5	6	7

Please provide the following background information. Please fill in the blank or circle your response.

Circle below how often you receive bonus or commission checks in your present job?  
 Monthly (30 Days) Bi-monthly (60 days) Quarterly (90 days) Semi-Annually (180 days) ~~Annually (365 days)~~

If you could change the time frame for bonuses and commissions in your present job, what would be your ideal?  
 Monthly (30 Days) Bi-monthly (60 days) Quarterly (90 days) Semi-Annually (180 days) ~~Annually (365 days)~~

Which timeframe for receiving bonuses and commissions reflects the common standard in the industry?  
 Monthly (30 Days) Bi-monthly (60 days) Quarterly (90 days) Semi-Annually (180 days) ~~Annually (365 days)~~

About how long have you been employed with your company? \_\_\_ years and \_\_\_ months  
 About how long have you worked with your current supervisor? \_\_\_ years and \_\_\_ months  
 What is your job title? \_\_\_\_\_  
 About how long have you been in this position? \_\_\_ years and \_\_\_ months  
 About how long have you worked in the telecommunications industry? \_\_\_ years and \_\_\_ months  
 About how long have you worked in sales? \_\_\_ years and \_\_\_ months  
 About how many days of formal sales training have you participated in? \_\_\_ days

What percent of your compensation is: salary \_\_\_ commission / bonus \_\_\_

Circle your approximate total annual income (including bonuses, commissions, etc.):  
 \$0 - \$40,000    \$40,000-\$70,000    \$70,000-\$100,000    \$100,000-\$130,000    Over \$130,000

What is the size of your current largest customer? \_\_\_\_\_ dollars

Circle your gender: Male Female

Please circle your level of education: high school some college college degree some grad school grad degree

Circle your age group: Under 25 25-34 35-44 45-54 55-64 ~~Over 65~~

Thank you for completing the survey!

Please check to make sure that you answered all the questions, and then place it in the business reply envelope and mail it.

001-881

If you would like to receive a summary of the results of this survey, please indicate an e-mail address below.

Email: \_\_\_\_\_

**APPENDIX C:**  
**SALES MANAGER COVER LETTER**





**APPENDIX D:**

**SCRIPT PROVIDED PRIOR TO COMPANIES AGREEMENT TO PARTICIPATE**

My name is Shane Hunt and I am a doctoral student at Oklahoma State University examining sales force operations for my doctoral dissertation and need your help with data collection. I would like to ask your permission to allow your salespeople and sales managers to participate in this survey. They will each be ask to fill out a questionnaire that takes about 10 minutes to complete. All participants will be selected at random and your employees responses will be kept completely confidential. No one from your company will see any of the surveys. Results will be reported only in aggregate form.

The results will be tabulated so that no names are included. I will provide a cover sheet outlining this information to each participant with each survey. The cover sheet will be separated from the questionnaire so there is no link between the participants name and their responses. By signing their name, they can indicate that they understand the study and give me permission to code their responses.

For each completed questionnaire returned, I will make a \$2.00 donation to the Make a Wish Foundation. In addition, I will be happy to send you a summary of the results of the study. Your participation in this research will help provide a better understanding of sales management that will improve performance of American firms and the lives of their individual salespeople.

**APPENDIX E:**  
**INSTITUTIONAL REVIEW BOARD APPROVAL**

## Oklahoma State University Institutional Review Board

Date: Thursday, December 07, 2006  
IRB Application No BU0654  
Proposal Title: The Influence of Sales Management Control Systems on Salesperson Perceptions of the Organization  
Reviewed and Processed as: Exempt

**Status Recommended by Reviewer(s): Approved Protocol Expires: 12/6/2007**

Principal Investigator(s)

Courtney Shane Hunt  
10118 E. 118th St.  
Bixby, OK 74008

Gary Frankwick  
312 College of Business  
Stillwater, OK 74078

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The IRB application referenced above has been approved. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

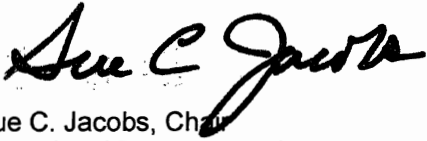
- The final versions of any printed recruitment, consent and assent documents bearing the IRB approval stamp are attached to this letter. These are the versions that must be used during the study.

As Principal Investigator, it is your responsibility to do the following:

1. Conduct this study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval.
2. Submit a request for continuation if the study extends beyond the approval period of one calendar year. This continuation must receive IRB review and approval before the research can continue.
3. Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of this research; and
4. Notify the IRB office in writing when your research project is complete.

Please note that approved protocols are subject to monitoring by the IRB and that the IRB office has the authority to inspect research records associated with this protocol at any time. If you have questions about the IRB procedures or need any assistance from the Board, please contact Beth McTernan in 219 Cordell North (phone: 405-744-5700, [beth.mcternan@okstate.edu](mailto:beth.mcternan@okstate.edu)).

Sincerely,



Sue C. Jacobs, Chair  
Institutional Review Board

**VITA**

COURTNEY SHANE HUNT

DOCTOR OF PHILOSOPHY

JULY 2007

Thesis: THE INFLUENCE OF SALES MANAGEMENT CONTROL SYSTEMS ON SALESPERSON PERCEPTIONS OF THE ORGANIZATION

Major Field: Marketing

**EDUCATION**

---

**Ph.D.**, Oklahoma State University, Stillwater, OK, July 2007, *Major: Marketing*,

**M.B.A.**, University of Oklahoma, Norman, OK, 1999, *Emphasis: Finance*.

**B.B.A.**, University of Oklahoma, Norman, OK, 1998, *Major: Marketing*  
*Minor: History*

**PROFESSIONAL EXPERIENCE**

---

Manager, Business Development, Citynet Fiber Network, Tulsa, Oklahoma

Manager, Network Pricing, WilTel Communications, Tulsa, Oklahoma

Product Manager, AFN Communications, Tulsa, Oklahoma

**PROFESSIONAL MEMBERSHIPS**

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American Marketing Association

Academy of Marketing Science

## ABSTRACT

**Name:** Courtney Shane Hunt

**Date of Degree:** July, 2007

**Institution:** Oklahoma State University

**Location:** Stillwater, OK

**Title of Study:** THE INFLUENCE OF SALES MANAGEMENT CONTROL SYSTEMS ON SALESPERSON PERCEPTIONS OF THE ORGANIZATION

**Pages in the Study:** 134

Candidate for the Degree of Doctor of Philosophy

**Major Field:** Marketing

**Scope and Method of Study:** Drawing upon signaling theory and social identity theory, this dissertation proposes and tests a model of formal sales management controls with factors that may interact to influence salesperson performance. Two methods are employed to answer a series of research questions. First, qualitative interviews were conducted with salespeople, sales managers, and executives to identify emerging factors that influence the relationship between formal sales management controls and performance. Second, a survey of 313 business-to-business salespeople was employed to test the expected mediating effect of perceived organizational support and organizational identification through which formal sales management control influences performance. Additionally, the model tests the moderating effects of salesperson compensation plan choice and incentive pay horizon on the relationship between control and performance.

**Findings and Contributions:** Both types of formal control (process and output control) were found to have significant positive effects on salespeople's levels of perceived organizational support and organizational identification. There was no direct or mediating relationship found between perceived organizational support and salespeople's performance. Organizational identification was found to have a significant positive relationship with salespeople's performance, but was not found to mediate the relationship between formal controls and performance. As salespeople had increasing levels of compensation plan choice, the positive relationship between process control and perceived organizational support was found to be weakened and the relationship between process controls and organizational identification became negative. The relationship between output control and organizational identification was negative at low levels of compensation plan choice, but a significant positive relationship was found when salespeople had higher levels of compensation plan choice. Finally, the study suggests that the positive relationship between process controls and perceived organizational support is not significant when salespeople's incentive pay horizons are longer (90 to 365 days).

Advisor's Approval \_\_\_\_\_ Gary L. Frankwick \_\_\_\_\_