

SALES PERFORMANCE IN CALL CENTERS

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ABSTRACT

Sales Performance in Call Centers

Christian Dagenais

While extensive research has been done on sales performance, few studies have examined sales performance in call centers. Despite rapid growth in the use of call centers as sales & marketing tools in Canadian companies, research into antecedents of sales performance in this type of environment has not evolved at the same pace.

This thesis will examine antecedents of sales performance in call centers from the perspective of the sales call center employee's evolution within the organization. Beginning with satisfaction with selection procedures, this study will trace the call center employee's sales performance through organizational commitment and tenure in order to identify possible antecedents of their sales performance.

The study involved examining satisfaction with selection procedures organizational commitment, tenure and sales performance, within three sales call centers across Canada. Results showed that previously established conclusions on the correlation between satisfaction with selection procedures, commitment and tenure could not be replicated; therefore the link between satisfaction with selection procedures and sales performance could not be demonstrated in this research model. Results did confirm that, organizational commitment and tenure were strongly correlated to sales performance, although organizational commitment and sales performance showed negative correlations where prior research had found positive correlations.

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À mon père, Albert, qui a toujours été là pour moi. J'espère un jour être un aussi bon père que toi. Merci.

To my grandmother, Nama. For all the summers, for all the knowledge and wisdom you've passed on to me, thank you.

Προς τον αδερφό μου, Γεράσιμο. Δε θα τα είχα καταφέρει χωρίς εσένα. Σου χρωστάω παραπάνω απ' όσα φαντάζεσαι.

Προς την ελληνική μου οικογένεια. Σας ευχαριστώ για όλη την αγάπη, την υποστήριξη και που με βάλατε στη ζωή και στην καρδιά σας.

I dedicate this thesis to my mother, Carolin. Mom, thank you for pushing me every step of the way, for never letting me give up on reaching this milestone, and for setting the standard.

TABLE OF CONTENTS

Introduction.....	1
How selection tools affect applicant satisfaction.....	2
Applicant satisfaction and organizational commitment.....	7
Applicant satisfaction and tenure.....	11
Commitment and sales performance	13
Tenure and sales performance.....	15
Research model.....	17
Method.....	18
○ Sample.....	18
○ Procedure.....	19
○ Measures.....	21
○ Satisfaction with selection procedures	21
○ Organizational Commitment.....	22
○ Tenure	22
○ Performance.....	22
Results.....	27
Discussion.....	34
Limitations and recommendations.....	42
References.....	45
Appendix.....	48

Introduction

In recent years, call centers have surged in popularity among sales driven organizations. More specifically, outbound sales call centers, also known as telemarketing centers, have become widely used as direct marketing tools for business to consumer and business to business organizations. Organizations that operate such call centers present a unique and interesting backdrop for sales performance research because call center operations are typically closely monitored with very detailed performance data and, to date, these centers have been the topic of very little empirical research. Gaining a better understanding of the antecedents of sales performance in this type of environment would be of great value to sales call center managers and sales driven organizations alike.

Outbound sales call center teams are effectively sales and marketing tools that generate revenue without ever having to leave the organization's premises. Where traditional sales models involve buyers and sellers interacting in person, sales call centers bypass this model and accomplish their transactions solely over the phone. Despite this conceptually simpler sales approach, call centers are notoriously challenging environments from a management and performance perspective. High turnover, continuous recruitment, high training costs and extensive coaching and performance management are just some of the many hurdles call centers must overcome to be successful (Grig, 2005). Any sales call center organization unable to overcome these management challenges will undoubtedly fail to achieve the center's primary goal of generating maximum revenue at the lowest cost. A well managed sales call center can provide an organization with large amounts of revenue at a relatively low cost whereas a poorly managed call center can end up costing the organization more money than it brings in. For sales

call center managers and operators, understanding how to maximize sales performance means gaining a competitive edge and growing a healthy business.

To help build a better understanding of the antecedents of sales performance in a call center environment, this study will examine employee satisfaction with selection procedures, organizational commitment, employee tenure within the organization and how these factors might influence employee sales performance. The goal of this research will be to examine how satisfaction with interview and testing practices might affect organizational commitment and tenure of a sales call center employee and how commitment and tenure in turn affect sales performance. While the marketplace variables that might affect sales performance are beyond the scope of this study, identifying some of the internal factors that might influence sales performance would certainly be of great assistance to sales oriented call centers looking to improve their overall performance and help these organizations drive their revenue generating capabilities forward.

How selection tools affect applicant satisfaction

Selection and recruitment procedures used by organizations have been shown to have an effect on the candidate's perceptions and attitudes towards the organization (Ployhart & Harold 2004). These perceptions and attitudes, whether positive or negative, are in fact manifestations of employee satisfaction with the organization's selection and recruitment process. However, when considering the question of antecedents of sales performance, reactions to selection procedures as antecedents to attitudes and perceptions of the organization are not sufficient. In order to be

of any value to a call center organization, we must understand the impact of these attitudes and perceptions and how they might affect sales performance.

Why might selection practices affect employee attitudes, behaviour and performance? A wealth of research examines the effectiveness of recruitment and selection from the company's point of view, but there is relatively little research from the viewpoint of the potential employee (Smither, Reilly, Millsap, Pearlman & Stoffey , 1993; Hausknecht, Day & Thomas, 2004). Because selection procedures are the first formal interactions an employee has with the organization, the power of first impressions might create a lasting effect on the employee's attitudes such as organizational commitment and eventually on employee tenure.

To answer better the question of why and how selection procedures affect employee perceptions of the organization, Ployhart and Harold (2004) developed what they call "*Applicant Attribution-Reaction Theory*". The authors' theory explains *the attributions people make for the cause of their treatment and the outcomes that explain their reactions*. (Ployhart & Harold, 2004) In essence, this theory aims to explain how applicants react to the selection process and the subsequent hiring decisions. According to the theory, attribution processes might explain the way individuals perceive and infer causality for various events as well as the consequences such perceptions have on their behaviour. In simpler terms, attribution-reaction theory is the way individuals rationalize the outcome of a given situation by attributing a cause to the outcome.

For example, an applicant might attribute the job offer they received from an organization to their own preparation "*I prepared well for the interview hence I got the position.*" Such an

attribution could imply satisfaction with the selection tool since the applicant's preparation was recognized and was rewarded with a job offer. The reaction component of the attribution theory is essentially the emotional reaction that comes from either an expected or unexpected outcome, *"I'm not surprised I got a job offer since I was well prepared"* or *"I'm surprised I didn't get an offer because I thought I was sufficiently prepared."* It is in the emotional reaction that we might uncover levels of satisfaction with selection procedures. Positive or negative emotional responses to the selection process would indicate either satisfaction or dissatisfaction with this same process.

To understand applicant response to the selection process, the attribution-reaction theory model uses three primary characteristics; consensus, distinctiveness and consistency. High consensus, in this theory, means that there is a common and frequent outcome for most applicants following the selection process within the organization (either most are hired or most are rejected), whereas low consensus means the outcome is specific to the applicant. High distinctiveness means that there is a unique and distinct outcome for the applicant following the selection process at the given organization whereas low distinctiveness means the outcome is frequent and common within other organizations. Where consensus and distinctiveness are focused on the organizational side of the process, consistency is focused on the individual applicant's side. High consistency, in this case, relates to a frequent outcome for the individual; either the applicant is typically accepted or rejected for the given position whereas low consistency means the outcome is relatively rare.

Ployhart and Harold go on to describe the internal and external attribution processes which reflect how a candidate attributes their success or failure within the recruitment process. Internal attribution simply means that the individual attributes the outcome of a situation to something they did, *“I prepared well for the interview hence I got a job offer”*; whereas external attribution means that the individual attributes the outcome of a situation to something someone else did, *“The interviewer asked easy questions hence I looked good and got the job.”*

To better illustrate this concept, Ployhart and Harold suggest, for example, that applicants will attribute their failure to obtain a position on external factors (external attribution) when they perceive an organization’s selection process to have high consensus, high distinctiveness and high consistency; i.e., the organization rejects most applicants (high consensus) but, the applicant has received job offers for the same position at other organizations (high distinctiveness) and typically, the applicant receives job offers following the selection process (high consistency). In this case, the applicant would normally make an external attribution for the outcome meaning they will not look to attribute the outcome to any internal shortcomings they might feel they have but rather attribute the outcome to something outside their control. The Attribution-Reaction Theory suggests that external attributions must be made “under conditions of high consensus, high distinctiveness, and high consistency.” (Ployhart & Harold, 2004) Contrarily, internal attributions are typically made in conditions of low consensus, low distinctiveness, and high consistency. Internal attribution is typically exhibited by applicants who fail to receive an offer when an organization’s selection process has: low consensus in that it accepts most applicants, low distinctiveness in that the applicant has not received any similar job offers at other organizations and high consistency in that the applicant has frequently been

rejected in the past. In this case, the applicant would make an internal attribution for the outcome meaning they will look to attribute their failure to something they themselves might or might not have done.

Another source of applicant's reactions to selection procedures are the validity and utility of the selection process. (Smither, Reilly, Millsap, Pearlman & Stoffey, 1993) There are two types of validity, as the authors suggest, that applicants assess during the selection process; face validity and perceived predictive validity. Face validity is defined by the authors as "*the extent to which the applicants perceive the content of the selection procedure to be related to the content of the job*" whereas perceived predictive validity is the perception of "*how well the procedure predicts future job performance regardless of how it looks*". (Smither, Reilly, Millsap, Pearlman & Stoffey, 1993) In essence, applicants must perceive the selection procedures to be relevant to the position for which they are applying in order for them to feel the process is valid and pertinent to their potential future position with the organization. We can therefore infer from applicants that report high levels of satisfaction with specific selection procedures that they believe the procedures to have both face and predictive validity. Smither et al's study complements Ployhart & Harold's in that both studies focus on the perception and attitudes applicants have of the organization during, and after the selection process.

For the purposes of the present study, applicant satisfaction with how selection tools used during their recruitment allowed them to demonstrate their knowledge, skills and abilities to the employer will be measured. Based on findings of prior research, higher levels of satisfaction with selection procedures will be interpreted as evidence that the employee made either a

positive internal or external attribution to the selection process and that the employee felt the tool had both perceived and face validity. To answer the question which type of applicant is likely to make either an internal or external attribution, we can look at who typical applicants to call centers are. Call centers of all types (sales, customer service, etc.) typically attract younger workers, either as student workers or as career starting, entry-level position work.

Demographically, call centers cater a very wide candidate pool because of their attractive pay and the simple fact that they offer an alternative to retail or fast-food service industries. (Calvert, 2000) In the context of this study, we are examining sales positions in call centers; positions that, regardless of the fact that they are in a call center, typically attract candidates with strong personalities and high self-confidence. (Lee & Gillen, 1989) Based on Ployhart and Harold's theory, it is probably more likely that stronger personality types with high self-esteem and self-confidence that receive job offers would make an internal attribution for their success and more subdued personality types with lower self-esteem and self-confidence would make an external attribution for their success. Whether or not these applicants' are satisfied with selection procedures should be irrespective of the attribution, either internal or external, because the end goal of the applicant has been met; the applicant has received a job offer. With either type of attribution, as long as the resulting reaction is positive, we can hypothesize that this positive reaction will translate to satisfaction with selection procedures.

Applicant satisfaction and organizational commitment

With this better understanding of the early stages of how employee attitudes and perceptions of the organization are formed, we can turn to how attribution theory and validity are linked to organizational commitment. Organizational commitment can be defined in several

ways. Steers' 1977 study defined organizational commitment as the relative strength of an individual's identification with and involvement in a particular organization; a strong belief in an acceptance of the organization's goals and values; willingness to exert considerable effort on behalf of the organization; and a strong desire to maintain membership in the organization (Steers, 1977). Allen and Meyer defined organizational commitment as a tri-component model of affective, continuance and normative commitment. (Allen & Meyer, 1990) Affective commitment is described as employees' emotional attachment to, identification with, and involvement in, the organization; continuance commitment is based on the costs that employees associate with leaving the organization; and normative commitment as the employee's feelings of obligation to remain with the organization (Allen & Meyer, 1990). The present study will not focus specifically on affective commitment but rather use a holistic approach to organizational commitment, examining how varying degrees of commitment might affect individual sales performance (Agarwal & Ramaswami, 1993; Fu Bolander & Jones, 2009; Liu, 2007).

Organizational commitment has been the focus of several studies involving salespeople and sales oriented organizations. A recent study by Fu, Bolander and Jones (2009) revealed strong correlations between commitment and the effort salespeople put into their jobs. Their study examined a 142 employee sales force to determine the effect of commitment, effort, job satisfaction and trust in supervisor on sales performance. As with Allen & Meyer (1990), Fu et al (2009) identified a specific type of commitment, affective commitment, as that which has the strongest positive effects on salesperson performance. Affective commitment is defined by Fu et al (2009) as emotional commitment to the organization and its values; commitment that is measured in terms of how "attached" and "involved" the employee feels towards the

organization and how willing the employee is to exert considerable effort for the organization. (Fu, Bolander & Jones, 2009). Fu et al's 2009 study also examined normative and continuance commitment's effect on salesperson effort where normative commitment was characterized as the internalized pressure an employee puts on themselves to meet the organization's goals and continuance commitment as the employee's desire to stay with the organization because of time already invested and the high cost of changing jobs. (Fu, Bolander & Jones, 2009) Fu et al found neither normative, nor continuance commitment to be statistically significant in predicting salesperson effort.

Why might satisfaction with selection procedures result in a high level of affective commitment? In Reda & Dyer (2010), a study of 94 employees in 31 different small businesses showed that the greater the number of selection practices experienced by employees during the selection process, the higher the employees' affective commitment to the organization, especially in employees with less than 2 years seniority. While this study did not examine employee satisfaction with the selection methods, the results nevertheless suggest that the presence of multiple structured selection methods does in fact increase commitment to the organization by improving the perceptions employees have of the organization as a potentially long-term employer. Again, this study demonstrates that first impressions of an organization begin with positive perceptions of selection procedures.

As prior research has shown in several studies including Benkoff 1997; Fu, Bolander & Jones 2009, Agarwal & Ramaswami, 1993; Liu 2006; Hausknecht, Day & Thomas, 2004 and Smither, Reilly, Millsap, Pearlman & Stoffey, 1993; the impact of employee attitudes and

perceptions on organizational commitment was found to be significant therefore it is in the link between employee attitudes and commitment that we can begin to formulate a potential causality chain. The connection between attribution, recruitment process validity and organizational commitment therefore lies in how satisfied applicants are with the organization's selection procedures and how this *satisfaction with selection procedures will become the foundation for the commitment the employee has to the organization.*

By measuring applicant satisfaction with the selection process, sales call center organizations can better understand the reactions and attributions applicants have towards the selection process and how these might lead to stronger organizational commitment and possibly sales performance. As discussed earlier, stronger personality types with higher self-confidence would likely make an internal attribution for their success in receiving a job offer. This does not imply however that internal attributions lead to lower levels of organizational commitment; it simply means that commitment from applicants who make an internal attribution may not begin with the selection process. Contrarily, employees who make an external attribution may in fact be those that feel stronger commitment to the organization as a result of the selection process. Since predicting which type of attribution an applicant is likely to make isn't a possible, organizations should focus on controllable aspects of the selection process and ensure that as many applicants are satisfied with the selection process as possible. Knowing reactions to selection procedures influence attitudes and perceptions of the organization, measuring satisfaction with selection procedures within an organization might therefore provide insight into how committed an applicant is likely to be to the organization once he or she is hired. Determining the nature of applicants' attribution is not within the scope of this study but order to

understand the effect of satisfaction on commitment, we must understand the origins of satisfaction with the selection process.

Selection methods and procedures are therefore an integral part of an employee's commitment to the organization. Where our study will expand on this conclusion is in the reported satisfaction employees had with the selection methods. Notwithstanding the number of selection methods used, how satisfied employees are with the methods themselves might play just as important a role as the presence of multiple structured selection procedures.

Hypothesis 1: The level of satisfaction with the selection process will be positively correlated with levels of organizational commitment.

Applicant satisfaction and tenure

Tenure in the workplace is considered a relative measure from one employee to another, i.e., how long an employee has worked for the company versus another. In Rollag (2004), tenure is described as a relative status that shifts as new members are brought into the group and old members leave. For example, an employee in a large stable organization with a few years seniority might still be a relative newcomer whereas an employee in a call center with the same tenure might be considered a seasoned veteran employee. The effect of tenure, as Rollag explains, is not measured in actual time but rather in relative time compared to other members of the work group.

In a sales call center environment, tenure, in absolute measures of time, might be relatively low in comparison to other departments within the organization because of the

inherently high levels of employee turnover in call centers (Richardson, 1999; Townsend, 2007). While antecedents of turnover are not within the scope of the present study, it is important to understand why turnover, and ultimately tenure, plays such a large role when analyzing call centers. Call center positions, particularly sales call center positions are high pressure, high expectation positions with relatively low pay, but for the most part, require neither prior experience nor specific educational backgrounds. These positions are also often viewed as “gateway” positions within the organization where employees feel they can grow into other, more stable and career-oriented positions and leave their call center positions behind (Townsend, 2007). This brings up another challenge for call center managers; external AND internal turnover. External turnover is when an employee leaves both their position and the organization, whereas internal turnover is when an employee leaves their position but not the organization. (Townsend, 2007) Managers therefore have to contend not only with employees leaving the organization, but also with employees taking on other positions in the organization. The bottom line is that call center employees, sooner or later, will leave the call center. The question is never if, it’s when. While there is no average overall call center tenure, it is widely agreed or implied that call center positions are not long term career positions and tenure, in comparison to other positions in an organization, is relatively low. (Townsend 2007; Grig 2005; Predmore, 1996)

However, as explained earlier, tenure is relative within a given group and relatively longer tenure within the call center might be an indicator of satisfaction with selection methods (Rollag, 2004). This would likely be true for several reasons. First, studies such as Reda & Dyer (2010) have shown that perceptions of selections methods are correlated with employee willingness to stay with an organization. While there are also studies (Fabi, Raymond &

Lacoursière 2007) that show that the selection methods themselves have no effect on tenure, the present study will differ in that it will measure satisfaction with selection methods rather than the structure of the selection process itself and how satisfaction levels might affect tenure. Based on the divergent findings of previous studies, the correlations between satisfaction with selection procedures and tenure might be difficult to establish with any statistical significance but since satisfaction has been shown to influence perceptions of the organization (Ployhart & Harold 2004), we can hypothesize that positive attitudes stemming from satisfaction with selection methods will be positively correlated to tenure.

Hypothesis 2: The level of satisfaction with selection procedure will be positively correlated with tenure.

Commitment and sales performance

To understand how commitment could influence sales performance, Fu, Bolander & Jones (2009) distinguished between commitment as a psychological state and effort as the physical actions that come from commitment. Organizational commitment leads to effort and effort affects the tangible actions and performance results of a sales force. (Fu, Bolander & Jones, 2009) According to Brown & Peterson (1994), *effort represents the “force, energy or activity by which work is accomplished”*; ipso facto, the higher the level of commitment, the higher the degree of energy a person will give to achieving their goal. With the present study’s focus being on sales performance, we can infer from this definition that higher levels of organizational commitment would lead to greater employee effort in achieving higher sales performance, but this relationship has yet to be established.

Commitment and effort were found to have a positive effect on sales performance in Benkoff's (1997) study on commitment and sales performance in the banking industry. (Benkoff, 1997) Benkoff studied survey responses from 182 employees of the banking sector in Germany in order to determine antecedents of job performance, more specifically the effect of commitment on performance. In his study, Benkoff found significant correlations between commitment and performance where bank branches that reported higher levels of commitment were found to have the hardest working employees and the best overall job performance. Organizational commitment is therefore likely to affect sales performance in that sales performance, like any job performance, is a function of effort and commitment. For a sales staff to put in maximum effort, the organizational commitment of this team must therefore be very high to achieve maximum performance.

In Agarwal and Ramaswami's (1993) study, the authors explained that since salespeople have a "result" defined job profile rather than a task defined profile, commitment to achieving that end result plays a significant role in sales performance. Of 184 responses from a member survey of the American Marketing Association, the authors found that because salespeople have "result" defined roles, commitment, particularly affective commitment, is highly correlated to their performance. Agarwal and Ramaswami, similarly to Allen & Meyer (1990), define affective commitment as relating to the employee's strong belief in and acceptance of the organization's goals and values and a willingness to exert considerable effort on behalf of the organization (Agarwal & Ramaswami, 1993) Agarwal & Ramaswami's 1993 findings vis-a-vis affective commitment compliment findings from Meyer & Allen's aforementioned study's results. Fu, Bolander & Jones' (2009) findings on affective commitment add to both Meyer &

Allen's and Agarwal & Ramaswami's findings regarding affective commitment and found in their study of 142 sales people from a large human resource services company that the most prevalent antecedent of affective commitment was found to be perceived organizational support (POS). Perceived organizational support is the employee's perception of the extent to which the organization values their contribution. Fu Bolander & Jones (2009) research showed strong correlations between commitment and sales performance. Results showed that as salespeople's positive perceptions of the organization's support and commitment towards them increases, so does their commitment and their performance.

We can hypothesize from these prior studies that organizational commitment will be positively correlated with sales performance in a call center environment. While none of these studies were conducted in a sales call center, the differences in testing environments should not affect the results, but given the institutionally high turnover rates in call centers and typically transient nature of their employees (Grig, 2005), we might find that even though respondents report high levels of organizational commitment, their sales performance will not be follow suit.

Hypothesis 3: The level of organizational commitment will be positively correlated with sales performance.

Tenure and sales performance

Tenure is essentially a measure of employee experience at a given task but represents neither a measure of skill nor a predictor of future success. However, tenure can be regarded as a measure of past success (Rollag, 2004). Tenured employees in any organization are typically those who are successful in their positions and have met or exceeded the requirements of their

position. However, the word “*success*” in Rollag’s study is not quantified as an absolute value since his study was not conducted in a sales environment where success is typically measured as sales performance versus sales objective. Where the requirements of most positions in an organization are evaluated on a predominantly qualitative basis, sales positions are typically purely quantitative. In any sales driven organization, salespeople with longer relative tenure are most likely those who have succeeded in achieving their respective sales goals on a consistent enough basis that they have chosen to pursue their career in sales and the organization has seen fit to retain their services for an extended period of time. (McNeily, Russ, 1992)

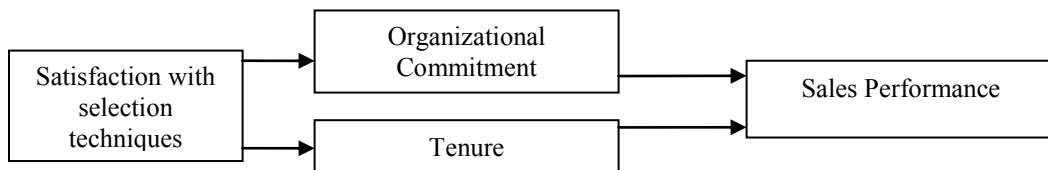
In a call center environment, or in any environment for that matter, examining only the relatively longer tenured employees in a sales team would not be of much use from a research perspective. In order to determine if tenure plays a role in sales performance, we must compare the results of relatively longer tenured employees with those of relatively new employees. In examining the results of new employees, we must first consider what brought the employee to apply for a sales position. Gable, Hollon & Dangelo (1992) found that applicants with sales experience at their previous job can be expected to have a more positive perspective on their sales career since they are seeking another sales position. Therefore, the applicants’ current positive opinion about sales positions might be reflected in higher future job performance. Moreover, Gable et al found that salespeople are more likely to be high performers if they are employed in a sales position at the time of hiring, and have a clear understanding of the selling position at this firm. (Gable, Hollon & Dangelo, 1992). Gable et al also highlight how tenure and prior experience have similar effects on performance in that both provide the necessary “on-the-job” practice that will hone sales skills and lead to increased performance. However,

performance in Gable et al is not specifically measured in terms of sales performance; therefore we cannot yet affirm that tenure and sales performance are correlated. The distinction between overall job performance and sales performance is significant for the present study. Therefore it will be interesting to determine if the results of Gable et al's study can be reproduced in a call center sales environment.

As studies have shown, (Gable, Hollon & Dangelo, 1992; McNeilly & Russ, 1992; Richardson, 1999; Townsend, 2006), high turnover is a systemic issue in call centers. Even though the present study will be measuring sales performance in a call center environment where tenure is, in absolute terms (actual number of months employed with the organization), likely to be low, we can nevertheless hypothesize that tenure will have an effect on sales performance where employees with longer tenure will have higher sales performance results than employees with shorter tenure.

Hypothesis 4: Tenure will be positively correlated with sales performance.

Figure 1: Research model



Method

Sample

Auto Ad (pseudonym) is a Canadian advertising solutions company based in Toronto that employs approximately 1,200 employees nationally. Auto Ad's Montreal, Toronto and Edmonton sales call centers participated in this web-based study. More precisely, the outbound call vehicle advertising sales teams within these sales centers were the focus of this study. Auto Ad's outbound call vehicle advertising sales teams employed 24 employees in the Montreal office, 44 in the Toronto office and 7 in the Edmonton office at the time of this study. All 75 employees were asked via email to participate in the study. However, employees in the Montreal center were also invited to participate in person since the research was based in Montreal. Employees in the Toronto and Edmonton centers were only invited by email. A first emailed invitation was sent to all targeted employees followed by a second reminder invitation 30 days later. Within 35 days of the first participation invitation, 65 employees responded to the survey, an 87% response rate.

Of the 65 respondents, 62 identified themselves either with their employee numbers or their ad taking system identification tags thus allowing participant identification. 28 of the 62 identifiable responses were female and 34 were male. This equates to an approximate 45/55 distribution between females and males in the sample. Gender distribution was similar in all three surveyed call centers. Participant age was also not a formal part of the survey questionnaire but based on information from Auto Ad's Human Resources department, the typical age demographic for the employees sampled is between 20 and 30 years old. Both full-time and part-time employees were asked to participate in the study. Full-time employees

typically work between 37.5 and 40 hours per week whereas part-time employees work between 24 and 35 hours per week. Auto Ad's Contact-Sales Centers include real-estate, vehicle and generalist advertising sales teams but for the purpose of this study, only vehicle advertising sales representatives were asked to participate because they a) represent the largest proportion of employees in the center and b) are the only sales team that is managed with the use of extensive performance measurement metrics such as total revenue, revenue per hour, total calls and calls per hour. The closer management of the vehicle advertising team was an important factor in deciding which team to analyze because of this study's highly detailed performance data requirements. Of the different advertising teams that Auto Ad employs, the vehicle advertising team is the only one that is managed using daily performance data, which provided a rich and accurate measure of performance (see below). All surveyed employees have the same job description and job title; Outbound Vehicle Advertising Sales Representative. From a consistency and data richness standpoint, analyzing the performances of vehicle advertising sales employees with identical job descriptions was a key strength of this sampling choice.

Procedure

The survey questionnaire was built using a web-based survey service. Both printed and online copies of the questionnaire were pilot tested to five individuals within the Contact-Sales Center to ensure the questions and instructions were clear. Minor modifications had to be made to the final question which required the participant to identify themselves for analysis purposes. Careful consideration was given to the way the final question was re-worded in order to reassure all participants that despite the fact that they were being asked to identify themselves, none of their answers would ever be used outside the scope of this study, particularly by any

management employees of Auto Ad's call centers. Only three of the 65 respondents chose not to identify themselves, suggesting that most participants were confident that their answers would not be used against them in any way.

Given that not all participants were located in Auto Ad's Montreal office, the decision was made to offer only web-based participation in the study. This simplified data collection immensely. Since no time would be lost after survey completion, data analysis could begin upon receipt. In December 2009, all Auto Ad's outbound call vehicle advertising sales representatives were sent an email that included an invitation to participate in this study, a link to the web-based version of the survey questionnaire, a cover letter explaining the details of the study and instructions on how to opt out of the study. Even though this survey was distributed to employees in the province of Quebec, translation of the questionnaire to French was not required since high-level English skills are a job requirement for all outbound call vehicle advertising sales representatives of Auto Ad; the survey questionnaire was therefore exclusively available in English.

Data collection began in December 2009. Just over 80% of all responses collected were obtained within 48 hours of the first email being sent. The first wave of responses yielded a 70% overall response rate. However, because of the small size of the sample, an overall response rate of 80% or better was the response goal. In January 2010, a second email was sent that included another invitation to participate for those who had not yet done so along with the cover letter and a link to the questionnaire. Following this second invitation, 12 more participants responded to the survey questionnaire for a total of 65 responses out of a total population of 75 outbound sales

representatives; a final response rate of 87%. No participants opted out of the study, either during data collection, nor post data collection.

Measures

The survey questionnaire used for this study was made up of four parts. The first part focused on the tenure and prior experience of the participant, the second part on organizational commitment, the third part on satisfaction with selection methods and finally the fourth part focused on self-ratings of performance. The complete survey questionnaire is available in the appendix.

Satisfaction with selection methods

The questionnaire measured the participant's satisfaction with the selection methods used during the recruitment process. A list of typical HR selection methods was compiled, including in-person interviews and telephone interviews. Using selection procedure information from Auto Ad's HR managers, selection methods that were specific to Auto Ad were also included. This included automotive knowledge tests and language comprehension tests. Thus a final list of twelve possible methods was presented in the questionnaire. Three groups of selection methods were created from this list. The first group for phone interviews, the second group for in-person interviews and a third for knowledge and comprehension testing. Participants were asked to indicate their level of satisfaction with how the selection methods used during their recruitment with Auto Ad allowed them to demonstrate their knowledge, skills and abilities. Possible answers ranged from "very satisfied" to "not at all satisfied," including a "method not used" choice in case the listed method was not used during the participant's recruitment. A five-point

Likert scale of satisfaction was used in this section, 1 being “Very satisfied” and 5 being “Not satisfied at all”. Satisfaction responses from participants were averaged to create an overall satisfaction score for each group of methods.

Organizational commitment

For this measure, we used Mowday’s (1979) scale of organizational commitment, which includes 15 items related to effort, loyalty, pride and a sense of belonging to the organization. Participants were asked their level of agreement with statements such as “I am willing to put in a great deal of effort to deliver more than is expected of me” and “I am proud to tell others that I am a part of this organization”. Each item was rated on a five-point Likert scale of agreement (5 = strongly agree). The internal consistency reliability rating for this measure was 0.859.

Tenure

Tenure within the organization was measured, as was prior experience, in order to determine if the participant had already developed sales skills prior to joining the organization, or if it was their current position that allowed them to develop their sales skills. Participants were first asked “How long have you been an outbound sales representative with Auto Ad?” Amount of prior experience in outbound call sales, and experience in the industry, that is, Contact-Sales Centers, were also measured using nominal yes or no questions.

Performance

The final part of the survey questionnaire measured the participant’s own evaluation of their sales ability and work performance. Self-ratings of performance were divided into two

categories. First, a comparative self-evaluation question was used where participants were asked to rate on a five-point Likert scale ranging from “Weak” to “Excellent” how they felt their own performance measured up against their colleagues’ performance. The following elements of performance were used for the comparative self-rating section: ability to convince a client to purchase an ad, ability to counter a client's objections, motivation to achieve sales objectives, consistency of overall effort and consistency of sales performance.

A second comparative self-evaluation question was then used in which participants were asked to rate how they felt their own performance, ability and potential to succeed as outbound sales representatives were accurately captured by the performance metrics used in the Contact-Sales Center. Using a five-point Likert scale ranging from “Highly Inaccurate” to “Highly Accurate,” participants rated their perception of their performance against the following performance metrics: sales per hour, revenue per ad, number of calls per hour, total revenue versus total objective, and closing rate. For this section of the questionnaire, a “comparative” self-evaluation of performance was used rather than an outright self-evaluation in order to attenuate the inherent bias of self-ratings of performance. By asking the participants to rate their own performance against their peers and the company’s measures, this gives them the opportunity to be as honest as possible without having to outright admit that their own performance is below expectation. Self-ratings of performance scores were then indexed to form an overall self-rating of performance.

For the purposes of this study, it proved impossible to protect each participant’s anonymity since archival results had to be matched to survey responses in order to complete the

analysis. Participants were informed of this but were reassured that all survey response data gathered in this study would not be used or seen by any other employee of the company, particularly any management staff within the call center department. Regardless of any written guarantees that might have been given to each participant, it is difficult to ascertain whether or not the promise of confidentiality was believed by the participants. Therefore it must be acknowledged that some participant responses might have been tempered out of hesitation that their responses would be examined by their direct supervisors. While the probability that this occurred is low, it must be acknowledged since this was not an anonymous survey.

To complete the pairing of survey responses with performance data, archival measures of performance were available. Three archival measures were available for measuring each participant's sales performance; total revenue, total hours worked and total outbound calls made. For each of these three measures, data from the fourth quarter of 2009 and first quarter of 2010 were used, that is, October 2009 to March 2010. Total revenue generated by each participant was obtained via written request to Auto Ad's finance department. The finance department gathers these data for every revenue-generating employee by extracting total payment summaries per employee from Auto Ad's ad taking system. Total hours worked by each participant was obtained via written request from Auto Ad's payroll department. The payroll department is responsible for gathering and archiving these data for every employee on a weekly basis. Total hours worked only includes worked hours and does not include any other payable hours such as vacation and sick days. Total outbound calls made by each participant were obtained via query of Auto Ad's call management system. This system is designed to track all calls made by employees who use the system. Members of the outbound call vehicle advertising sales team

must log into the call management system in order to do their work. Since logging into the system is necessary, call counts in the system's reports for the reference period are accurate and not an approximation. However, during the analysis period, five outbound vehicle advertising sales representatives were located outside the Contact-Sales Center and thus could not log into the call management system. These employees were given sales leads manually and their calls were manually tracked. For these five employees, accurate call counts were not available therefore their results were omitted from the analysis.

From these three archival measures, two "*normalized*" performance measures can be calculated; a revenue-per-hour performance measure and a call-per-hour measure. The use of normalized measures in this particular study is important given the fact that the sample includes both part-time and full-time employees. The "*per hour*" measure is one of the few measures that allows for analysis of performance in this type of environment. The term "normalized" indicates that the measure is unbiased by the number of hours the employee worked. **Revenue per hour is the key performance indicator that will be used in this study.** From a sales performance perspective, the higher a sales representative's revenue per hour is, the better their performance. This measure only considers the amount of revenue generated per hour worked thus eliminating the inherent bias of total revenue statistics where one employee might have generated more revenue than another simply because they are full-time employees rather than part-time. The revenue per hour measure is important in the context of this study because, given the mix of part-time and full-time respondents, total revenue generated in the analyzed period is not in and of itself relevant; it is how much revenue per hour worked that is relevant. In order to establish a sales performance benchmark, revenue per hour is the least discriminate performance metric

since it is not dependent on the number of hours worked per se. Using revenue per hour therefore allows us more accuracy in comparing performance from one sales representative to the next.

Second, *calls per hour* will be used to measure each participant's overall efficiency. In a call center environment, revenue cannot be generated without making calls, so the more calls an employee makes, the more revenue they are likely to generate. This metric is calculated by dividing the total number of calls by the total number of hours worked. Calls per hour gives us an average call count for every hour worked. It is this average that allows for accurate comparison to be made from one sales representative to another in terms of their sales efficiency. This particular metric differs from revenue per hour because while revenue per hour measures sales performance, calls per hour measures sales efficiency. For example, if an outbound sales representative has relatively low revenue per hour and a high call per hour count, this would indicate that their overall sales efficiency is low. If an outbound sales representative has relatively high revenue per hour and a low call per hour count, this would indicate a high sales efficiency.

Results

	MEASURE	MEAN	SD	1	2	3	4	5	6	7	8
1	OVERALL SATISFACTION WITH SELECTION	4.28	0.83	0.979	0.822**	0.706**	-0.069	0.025	0.327*	0.103	0.001
2	SATISFACTION WITH SELECTION INTERVIEWS	4.42	0.83		0.928	0.114	-0.195	0.15	0.395**	-0.24	-0.156
3	SATISFACTION WITH SELECTION TESTING	4.13	1.03			0.942	0.015	-0.039	0.118	0.117	0.022
4	ORGANIZATIONAL COMMITMENT	4.09	0.68				0.859	-0.079	-0.266	0.105	0.238*
5	TENURE	10.99	15.12					N/A	0.288	0.070	-0.047
6	REVENUE PER HOUR	30.79	24.86						N/A	-0.108	0.132
7	CALLS PER HOUR	6.25	3.74							N/A	0.351**
8	SELF-RATINGS OF PERFORMANCE	3.51	1.05								0.957

* $p \leq 0.05$ ** $p \leq 0.01$

Sixty five survey responses were received for this study and 62 of those responses were complete. While the sample size for this analysis was small, the data collected were nonetheless fairly detailed. Given that the data were collected in three separate call centers, an overall analysis and a regional analysis were completed on all hypotheses to ascertain if any regional differences might be present.

Analysis results showed reliability ratings of satisfaction with selection procedure responses to be strong ($\alpha = 0.979$). Twenty-five of the 62 respondents (40.3%) reported having been interviewed over the phone, either by a member of Human Resources, a member of the call center management team or both. Overall satisfaction with selection procedures (on a scale of 1 to 5, 5 being the highest level of satisfaction) was found to be 4.28. This indicates an overall average between satisfied and very satisfied with selection procedures.

88% of these respondents reported being either “very satisfied” or “satisfied” with the phone interview in that it allowed them to demonstrate their knowledge, skills and abilities to the organization, 12% reported being either indifferent or dissatisfied with this selection method.

Fifty-three of the 62 respondents (85.5%) reported having been interviewed in person either by a member of Human Resources, a member of the call center management team or both. 85.8% of these respondents reported being either “very satisfied” or “satisfied” with the in-person interview in that it allowed them to demonstrate their knowledge, skills and abilities to the organization, 14.2% reported being either indifferent or “unsatisfied” with this selection method.

Thirty-four of the 62 respondents (54.8%) reported having passed either written or verbal knowledge and/or comprehension testing. 70.5% of these respondents reported being either “very satisfied” or “satisfied” with the testing process in that it allowed them to demonstrate their knowledge, skills and abilities to the organization. 29.5% reported being either indifferent or “unsatisfied” with the testing process.

Thirty-seven of the 62 respondents (59.6%) reported either “strongly agreeing” or “agreeing” with organizational commitment related questions. 40.4% reported being either indifferent or in “disagreement” with commitment related questions.

Hypothesis 1 stipulated that satisfaction with selection methods was positively correlated with organizational commitment. Data analyses showed no statistically relevant correlation in the sample between overall satisfaction with selection procedures and organizational commitment. ($r = -0.069$, $p = 0.305$) However, satisfaction with selection procedures was analyzed in two parts; first the interview process and second, the knowledge and comprehension testing. Correlations between satisfaction with the interview process and organizational commitment were found to be marginally significant ($r = -0.195$, $p = 0.079$) whereas correlations between satisfaction with the testing process and organizational commitment were found to be statistically insignificant ($r = 0.015$, $p = 0.466$).

In order to understand further the correlation between satisfaction with selection procedures and organizational commitment, results from the three different Auto Ad call centers were analyzed separately. Correlations between satisfaction and commitment were not found to be significant ($r = -0.283$, $p = 0.107$) in the Montreal call center but only by a narrow margin. For the Toronto call center, correlations were not significant ($r = -0.059$, $p = 0.378$), likewise for the Edmonton call center ($r = -0.123$, $p = 0.422$), however the small sample size in Edmonton might not be sufficient to draw a statistically relevant conclusion. While none of the analyzed centers showed any statistically significant selection and commitment correlations, the data do suggest that regional differences might be present; differences that perhaps a larger sample size might reveal. Based on the fact that no correlation was found between satisfaction with interview procedures and organizational commitment in any of the three centers analyzed and no other correlations were found with regards to selection procedures and commitment, the results of this study do not support hypothesis 1; hypothesis 1 is therefore rejected.

Hypothesis 2 stipulated that the level of satisfaction with selection procedures will be positively correlated with tenure. Overall satisfaction with selection procedures and tenure in our study was not found to have any statistically relevant correlation ($r = 0.025$, $p = 0.426$). This result indicates that overall employee satisfaction with selection methods did not influence the employee's willingness to continue working for the organization. In breaking down satisfaction with selection procedures into two parts; interview procedures and testing procedures, our data did not find any statistically relevant correlations between satisfaction with both interview and testing procedures and employee tenure. ($p > 0.05$)

In our regional analysis of satisfaction with selection procedures and tenure, we examined the results of each individual call center in the study and found that overall satisfaction with selection procedures was in fact correlated in all three call centers analyzed in this study, but where two of the three centers showed negative correlation and the other showed a positive correlation. Satisfaction with selection procedures was found to be negatively correlated with tenure in the Montreal call center ($r = -0.443$, $p = 0.022$) as well as in the Edmonton call center ($r = -0.811$, $p = 0.048$) but results in the Toronto call center showed positive marginal correlation between overall satisfaction with selection procedures and tenure ($r = 0.261$, $p = 0.082$). Again, the different results obtained in the different call centers analyzed in this study are not entirely explainable in the context of this study. Why the Toronto center's responses showed a positive correlation where others showed negative correlations cannot be explained with these present data. However, it should be noted that this study only measured responses from active employees and from a relatively small sample size. This is in and of itself a bias to the results since no former employees were queried and this data set cannot provide any information as to why an employee left the organization. Without former employee data and to mitigate this

potential bias, correlations between tenure and organizational commitment were tested. Results showed no statistical correlation between tenure and organizational commitment ($r = -0.072$, $p = 0.579$). Average tenure in months with the organization in this study was only 10.99. The most tenured employee in the sample only had 60 months tenure and the least tenured had only 1 month tenure and average commitment scores on a scale of 1 to 5 (5 being the highest score) was 4.09. This data set has a combination of low absolute tenure with high commitment scores. Perhaps this data set is too skewed to draw any broad based conclusion with regards to satisfaction with selection procedures and tenure but overall, within the context of this analysis, the data do not support that satisfaction with selection procedures is positively correlated with tenure. We must therefore reject hypothesis 2.

Hypothesis 3 stipulated that commitment and sales performance are correlated. There are several aspects of performance in this study and each was independently measured against indexed commitment scores. First, possible correlations between commitment and revenue per hour were analyzed. A one-tailed test was performed for this particular measurement since it was anticipated that commitment and revenue per hour would be positively correlated. Data analysis found statistically significant negative correlations between commitment and revenue per hour ($r = -0.266$, $p = 0.018$, 1-tailed test). This would indicate, contrary to what previous research has shown that commitment is not positively correlated with performance. Correlations between commitment and revenue per hour in this analysis demonstrated that the higher the level of commitment to the organization the lower the sales representative's revenue generated per hour. Second, commitment and self-ratings of performance were measured. Data analysis found statistically relevant correlations between these variables ($r = 0.238$, $p = 0.031$, 1-tailed test).

This would indicate that in this call center environment, higher levels of organizational commitment lead to more positive employee self-perceptions of their ability to meet the organization's expectations. Third, commitment and calls per hour were measured. In this case, no relevant correlations were found in the sample indicating that higher commitment levels do not affect work efficiency in the call center environment. Higher commitment levels are therefore not correlated with the employee's calls per hour.

Delving deeper into this aspect, results for the three measures of performance and commitment were also analyzed by individual call center. Results from each center showed no statistically relevant correlations between commitment and any of the three performance measures ($p > 0.05$). This would indicate that while there might not be a correlation present in each individual center, the combined results of each center do provide evidence that commitment and performance are negatively correlated. From a sales performance perspective, the results of this analysis do not support hypothesis 3; commitment and performance are negatively correlated.

Hypothesis 4 stipulated that tenure was positively correlated with sales performance. Again, there are several aspects of performance in this study and each was independently measured against tenure results. First, tenure and revenue per hour were analyzed where a one-tailed test was performed since it was anticipated that tenure and revenue per hour would be positively correlated. Results showed tenure and revenue per hour to have a strong correlation. ($r = 0.288$, $p = 0.012$, 1-tailed test) This result demonstrates that the longer the employee has worked in the call center, the better their sales results are. Second, tenure and self-ratings of

performance were measured. Analysis showed no correlations between tenure and self-ratings of performance ($r = -.047$, $p = 0.359$). This would suggest that call center employee's impressions of their performance are unaffected by the duration of their tenure. Third, tenure and calls per hour were analyzed. Results again showed no relevant correlation ($r = 0.70$, $p = 0.294$)

In examining results from each call center individually, analysis results showed no statistically relevant correlations between tenure and any of the three performance measures in both Montreal and Edmonton ($p > 0.05$). However, a very strong correlation was found between tenure and revenue per hour in the Toronto call center ($r = 0.568$, $p < 0.001$), but no correlation was found with any of the other two performance measures.

To understand better how the individual performance measures might be correlated with one another, a correlation analysis was performed between revenue per hour, self-ratings of performance and calls per hour. Overall, with all three call centers combined, only self-ratings of performance and calls per hour were found to be correlated ($r = 0.351$, $p = 0.005$). This would indicate that the call center employees in this study are as efficient as they believe they are in terms of their calls per hour, but are not as self-aware of their sales capabilities.

We can therefore conclude that tenure in and of itself plays a significant role in sales performance. We can accept Hypothesis 4 and conclude that tenure and sales performance are correlated. Tenured sales call center employees therefore have higher sales results than less tenured employees.

Discussion

This study aimed to establish possible antecedents of sales performance in a sales call center organization from a human resource management perspective. If call center organizations had a road map for maximizing the sales productivity of their employees, this knowledge would be of great value in helping build and grow stable businesses.

Where traditional workplace environments exhibit correlations between selection procedures and organizational commitment, the sales call centers in this study did not. Where selection procedures and tenure were related in previous studies, the sales call centers in this study did not have any such relationship. In attempting to design a management road map for call centers, it became apparent in light of this conclusion that the call center environment does not follow the same patterns as other workplace environments.

Analysis results of the first hypothesis where a marginally significant correlation between satisfaction with the interview process and organizational commitment was found might be explained by the fact that the interview process is a direct contact with the organization and its people. When considering the difference between these two aspects of the selection process, interviewing is where an applicant will form his or her first impression of the organization and the potential colleagues he or she would work with should he or she be hired. Future studies could examine the varying degree of effect on applicant perception of an organization between interviewing and testing.

Another interesting finding in the analysis of the first hypothesis was that a stronger relationship was found between satisfaction with interview procedures and commitment in the Montreal call center. Why this call center reported higher satisfaction and commitment levels is still unclear given that all three call centers examined in this study were operated by the same company with the same hiring practice standards. Even though the correlation was not statistically significant, it was stronger than in the other two call centers and that would indicate that there is something different in the Montreal center that is giving this result. This would indicate that the interview process is possibly different in the Montreal center from that of the other two centers. Without further analysis however, we can only speculate that procedures in the Montreal center must have a more positive effect on employment candidates than in the other centers at Auto Ad. Overall however, the results of this analysis demonstrate that contrary to results of previous studies in different types of organizations, satisfaction with selection procedures and organizational commitment are not necessarily correlated in a sales call center environment.

Analysis of our second hypothesis again contradicts findings of previous studies that showed a positive correlation between selection procedures and tenure. In this particular call center environment, overall satisfaction with selection procedures was not correlated with tenure, not because no correlations could be identified, but rather because of divergent positive and negative correlations between centers. Again in this case, regional differences were found in the results. The Montreal and Edmonton call centers stood out with a strong negative correlation between satisfaction and tenure while the Toronto call center on the other hand showed marginal positive correlation between overall satisfaction and tenure. Why some centers seems to be

trending in opposite directions from the rest of the group is not clear and cannot fully be understood with the present data, but it is apparent from the results that something in the recruitment and selection process is different in the Montreal and Edmonton centers. The information obtained from Auto Ad's human resources department gave no indication of any regional differences in recruitment or selection processes therefore there must be another mitigating variable causing this regional difference. Given that some centers are trending in different directions than others, further analysis could focus on regional differences in perception of selection procedures within organizations. A multi-organization study with offices in different cities and provinces could identify if regional biases inherently exist within organizations that operate offices in different parts of the country.

With regards to our analysis of correlation between tenure and commitment, the results suggest commitment did not affect duration of employment in these call centers. However, since the queried employees are all active, this particular sample might not have been sufficiently diverse to obtain the necessary information to ascertain this previously demonstrated correlation. Had the sample included present and past employees, perhaps this correlation could have been established. Given the fact that this study examined employees in call centers which inherently have systemically high turnover (McNeilly, 1992), whether employees are satisfied with how selection methods allowed them to demonstrate their knowledge, skills and abilities might not be a sufficient influence on their decision to stay with the organization, nor would their commitment to the organization be enough to keep them there. The typically transient nature of call center employment might explain why previously established relationships could not be reproduced in

this study. Regardless of how satisfied or committed the call center employee is, turnover is an immutable aspect of sales call center management

Overall, the sample group queried in this study had such brief tenure with the organization it might be inappropriate to reject hypothesis 2 outright because correlations were in fact found, they were simply inconsistent from one center to another. The regional split within the results and relatively short tenure of the sampled employees suggest that further analysis would be required to determine whether or not results found in each center can be replicated or if the overall results are valid. Future testing could explore the comparative difference between a tenured group, e.g. 5 years and more, and a relatively new group, e.g. 6 months or less since the standard deviation of tenure in months was significantly higher than the mean. However given the result of this present analysis, we must conclude that in this call center environment, satisfaction with selection methods is not correlated with tenure.

Our third hypothesis analysis found that sales performance and commitment were negatively correlated; a counter-intuitive relationship that suggests that higher levels of organizational commitment lead to lower revenue per hour and vice versa. Considering the nature of the variables in question, it seems more likely that, in practice, commitment simply does not play a significant role in sales performance since suggesting that higher commitment leads to lower sales performance implies that sales call center organizations should go out of their way to keep commitment to a minimum in order to boost sales performance, a rather illogical premise. While the results of this particular study showed a negative correlation between commitment and revenue per hour sales performance, these findings may be the result

of the study's small sample size rather than the discovery of a call center-specific relationship. Again, a larger sample size in multiple organizations would benefit any future studies on this aspect of the present study.

Contrary to our findings with regards to commitment and revenue per hour, employee self-ratings of performance were found to be related to organizational commitment. The implication of this result is that commitment to the organization does boost employee confidence in their ability. This conclusion has been drawn from previous studies as well and the results of this analysis confirm that call center sales employees follow this same paradigm.

Another aspect of our third hypothesis analysis that is rather odd is that, measured individually, none of the performance measures in any of the call centers were found to be correlated with commitment. Only when analyzed as a whole was a correlation found. This might be due to the rather small sample size in this study. Perhaps an expanded study with multiple sales call centers in multiple organizations might shed some light on why the correlation result changed as the sample size was reduced.

In our fourth hypothesis analysis, it was determined that revenue per hour and tenure are positively correlated. This conclusion suggests that sales call centers must prioritize employee retention in order to improve their sales performance. Partial correlation analysis also demonstrated that it is tenure, not just prior experience that will positively affect revenue per hour. The fact that tenure and self-ratings of performance are not correlated is surprising. As tenure increases, it would be safe to assume that call center employees would feel more

comfortable about their skills and their overall performance but evidently this is not the case. However, since a positive correlation was found between tenure and revenue per hour, the negative effect on the organization of tenure and self-ratings being uncorrelated is minimal. The goal of the organization is to maximize revenues and if that objective is being met, self-ratings of performance are more or less inconsequential to call center organizations in this context.

Regional analysis of the correlation between tenure and sales performance showed an unexpected result where the Toronto call center's results were completely contrary to those found in Montreal and Edmonton. Where the Montreal and Edmonton call centers reported no correlation, the Toronto center showed very strong correlation between tenure and revenue per hour performance. As with our first and second hypothesis testing, this regional difference cannot fully be explained with the present data. Average tenure for the Toronto center was 11.5 months, Montreal 12.4 months and Edmonton 6.8 months. Given that Toronto's average tenure is not an outlier in this analysis, the variance from the Toronto center could be operational rather than incidental where this team's more tenured sales employees are perhaps given larger advertising accounts or have benefited from more effective training and development. The particularly strong correlation in Toronto might even have skewed the overall result. Without larger scale testing however, there is no way validate this conclusion.

The research model for this study proposed that there would be a causal link between satisfaction with selection methods and sales performance. Because the findings of this study could not support this hypothesized link, we must conclude that, in the framework of the current

research model, a direct relationship between satisfaction with selection methods and sales performance in the sales call center environment cannot be confirmed.

These findings however do not preclude the possibility that an alternate research model might yield different results in a similar setting. While the results of this study *did establish a link between commitment and sales performance as well as tenure and sales performance*, we can hypothesize that where the current research model was misaligned was not with the direct antecedents of sales performance but rather the antecedents of commitment and tenure in the call center environment. A new research model could therefore be created to establish the antecedents of commitment and tenure in sales call centers. Moreover, commitment and tenure are not the only independent variables that affect sales performance therefore an expanded research model may offer more insight into the antecedents of sales performance. Aforementioned studies have examined elements such as job satisfaction, turnover, personality types, motivation and role clarity in relationship to sales performance; and while the present study did not find a direct link with satisfaction with selection procedures and commitment and tenure in a sales call setting, satisfaction with selection procedures might influence other elements that do directly affect sales performance. (Predmore, 1996; McNeilly, Russ, 1992; Walker et al, 1985; Yammarino, Dubinsky, 1990; Brown, Petersen, 1994; Hausknecht et al, 1994) In short, an alternate expanded research model might find other ways in which satisfaction with selection procedures affects sales performance.

This study's established negative link between commitment and sales performance is a curious step in sales call center research but without establishing how commitment could

negatively affect performance, the conclusions drawn from this aspect of the study are not practically useful. It is of course useful for sales call center organizations to know that the longer they can keep their employees, the better sales performance will be, but further research would be necessary to identify the antecedents of commitment and tenure in sales call centers.

With regards to the intercorrelations between performance measures, both normalized and non-normalized data showed no correlation. From a call center management perspective, the absence of a statistical link between normalized measures such as revenue per hour and calls per hour poses a significant problem. At the root of the call center's operation is the actual call. Without calls, sales cannot be completed. How sales figures don't increase as calls increase suggest that perhaps it is not the quantity of calls that is important, but rather the quality. From a call center management perspective, this finding should be explored further since traditionally, the goal in call centers has always been to speak to as many people as possible in order to find a potential client who is willing to purchase what the organization is selling. (Grig, 2005) Since the findings of this study indicate that call quantity and revenue per hour are not correlated, the old adage of dialling as much as possible might not actually be the key to higher call center sales revenue.

Where revenue per hour and self-ratings of performance are concerned, the absence of correlation suggests an underlying disconnect between the way sales call center employees view their abilities and performance versus their actual sales productivity. While identifying the possible causes of this are beyond the scope of this analysis, we can suggest that further research examine organizational culture, training and development in call center settings to try and

determine why these two aspects of performance do not appear to be correlated. Another possible cause of this could be that respondents were required to identify themselves in the survey and might have been hesitant to answer the self-ratings of performance questions truthfully. The written guarantee of privacy as well as the introspective and comparative nature of the self-ratings of performance analysis should have mitigated some of the possible biases from the lack of anonymity but the analysis demonstrates a counter-intuitive result with regards to self-ratings and actual performance. This question alone would be an interesting topic of follow-up study in this environment.

Limitations & Recommendations

It should be noted that this study had considerable limitations with regards to sample size. While the response rate to this study was substantial, the actual number of responses was quite low. This unfortunately diminishes the statistical power of the present study. The small sample size might hinder replication of results in other sales call center environments and might also hinder the discovery of other relationships within the framework of the study. In order to attempt to replicate the results of this study, future research could focus on a larger sample size, perhaps with at least 100 responses. Also, the fact that this study was conducted in only one organization might also bring organization-specific biases such as market and management conditions to the results which a different study of the same field might not replicate.

Despite these limitations, the data collected were a strong mix of survey and archival results with several normalized performance measures. The use of normalized data was important in this study since revenue per hour and calls per hour are notwithstanding of the

employee's part-time or full-time status. The "per-hour" performance metrics reflect the employee's performance for the time they were present, thus mitigating the bias created by respondents who might work more hours than others.

The data were also gathered in three separate call centers in three separate regions of Canada, allowing for in-depth analysis despite the small sample size. Again, if the data collected could be gathered on a larger scale, the strength of the conclusions drawn in this study would be greater.

Given the results obtained in the study, a new research model could also be beneficial, examining further the antecedents of turnover and organizational commitment in the sales call center environment. While several studies have already been published on antecedents of turnover, the focus has not been on the sales call center environment. Since overall satisfaction with selection procedures was found to affect tenure, it would be beneficial to the field of sales call center management to determine what factors influence tenure most. Also, since overall satisfaction with selection procedures was not correlated with commitment, determining antecedents of commitment in the sales call center environment would be greatly beneficial given the strong negative correlation between commitment and sales performance.

Overall, this analysis has raised interesting questions for call center organizations and managers. Where previous studies established links between selection procedures and organizational commitment, this study found none. Where previous studies found positive correlations between selection procedures and tenure, this study found the opposite was true in

two of the three centers in the study, and that because of this, no overall positive correlation could be identified. Why is satisfaction with selection procedures neither linked to commitment nor tenure in sales call centers? Does this mean that call center organizations should disregard any attempt to refine their selection process? The answer is obviously no. But, at the very least, call center organizations should take into account that the effect of their selection procedures will be minimal on both organizational commitment and tenure. In short, the results of this present study suggest that the antecedents of both these factors are simply not rooted in selection procedures.

Despite these questions, the end goal for sales call center managers is sales performance. The ingredients that make up sales success in call centers evidently do not come from satisfaction with selection procedures but we now know that tenure does lead to strong sales performance and that commitment, although this study found a negative correlation, plays a significant role in sales performance in call centers. Knowing this, however, is not sufficient. In order to be of any use, we must understand the antecedents of organizational commitment and tenure in this environment and with this, sales call center organizations and managers can finally have a roadmap to achieve their sales goals and maximize the effectiveness of their sales teams.

References

- Agarwal, S., Ramaswami, S.N. *Affective Organizational Commitment of Salespeople: An Expanded Model*. The Journal of Personal Selling & Sales Management. Spring 1993; 13, 2; pg. 49
- Benkhoff, B. *Ignoring Commitment Is Costly: New Approaches Establish The Missing Link Between Commitment and Performance*. Human Relations; Jun 1997; 50, 6; pg. 701
- Brown, S.P., Cron, W.L., Slocum J.W. *Effects of Trait Competitiveness and Perceived Intraorganizational Competition On Salesperson Goal Setting and Performance*. Journal of Marketing; Oct 1998; 62, 4; pg. 88
- Brown, S.P., Peterson, R.A. *The Effect of Effort on Sales Performance and Job Satisfaction*. Journal of Marketing and Research. 58, 2, 1994. pp.70-80
- Brown, S., Peterson, R.A. *Antecedents and Consequences of Salesperson Job Satisfaction: Meta-analysis and Assessment of Causal Effect*. Journal of Marketing and Research. 30, 1, 1993. pp. 63-77
- Calvert, N. *Today's Changing Call Centre: An Overview*. Journal of Database Marketing Vol. 8, 2, 2001. pg. 168-175
- Carroll, M., Marchington, M., Earnshaw, J., and Taylor, S. 1999. *Recruitment in Small Firms: Processes, Methods and Problems*. Employee Relations 21(3): 236-250.
- Fabi, B., Raymond, L., and Lacoursière, R. *HRM Practice Clusters in Relation to Size and Performance: An Empirical Investigation in Canadian Manufacturing SMEs*. Journal of Small Business and Entrepreneurship. 2007. 20 (1): 25-40.
- Feinberg, R., Kim, I.S., Hokama, S, Ruyter, K., Keen, C. *Operational Determinants of Caller Satisfaction in the Call Center*. International Journal of Service Industry Management. Bradford: 2000. Vol. 11, Iss. 2; pg. 131
- Fogarty, T.J., Kalbers, L.P. *Internal Auditor Performance: A Comparison of Self-Ratings*. Managerial Auditing Journal; 1993; 8, 4; pg. 22
- Fu, Q. F, Bolander, W., Jones, E. *Managing the Drivers of Organizational Commitment and Salesperson Effort: An Application of Meyer and Allen's Three Component Model*. Journal of Marketing Theory and Practice; Fall 2009; 17, 4; pg. 335
- Gable, M., Hollon, C., Dangelo, F. *Increasing the Utility of the Application Blank: Relationship Between Job Application Information and Subsequent Performance and Turnover of Salespeople*. The Journal of Personal Selling & Sales Management; Summer 1992; 12, 3; pg. 39

- Grig, R. *Outbound calling - Discredited or Misunderstood?* Journal of Targeting, Measurement and Analysis for Marketing. London: Aug 2005. Vol. 13, Iss. 4; p. 295
- Harish, S., Weitz, B.A., Kumar, N. *Learning, Orientation, Working Smart, and Effective Selling.* Journal of Marketing; Jul 1994; 58, 3; pg. 39
- Hausknecht, J.P., Day, D.V., Thomas, S.C. *Applicant Reactions to Selection Procedures: An Updated Model and Meta-Analysis.* Personnel Psychology; Autumn 2004; 57, 3; pg. 639
- Kantsperger, R., Kunz, W. *Managing Overall Service Quality in Customer Care Centers.* International Journal of Service Industry Management; 2005; 16, 2; pg. 135
- Lee, C., Gillen, D.J. 3. *Relationship of Type A Behavior Pattern, Self-Efficacy Perceptions on Sales Performance.* Journal of Organizational Behavior . Jan 1989; 2, 1; pg. 75
- Liu, C.-M. *The Early Employment Influences of Sales Representatives On The Development of Organizational Commitment.* Employee Relations. Vol. 29 No. 1, 2007. pp. 5-15
- McNeilly, K.M., Russ, F.A. *The Moderating Effect of Sales Force Performance on Relationships Involving Antecedents of Turnover.* The Journal of Personal Selling & Sales Management; Winter 1992; 12, 1; pg. 9
- Meyer, J.P., Allen, J.N. and Smith, C.A. *Commitment To Organization and Occupations: Extension and Test of Three-Component Conceptualization.* Journal of Applied Psychology, 1993. Vol. 78 No. 4, pp. 538-51.
- Mowday, R.T., Steers, R.M. and Porter, L.W. *The Measurement of Organizational Commitment.* Journal of Vocational Behavior. 1979. 14, 224-247.
- Nhundu, Tichatonga J. *The Relationship Between Self- and Supervisor Appraisals With Role Clarity and Job Satisfaction.* Journal of Educational Administration. Armidale: 1992. Vol. 30, Iss. 1; pg. 29, 13 pgs
- Oliver, R.L. *Expectancy Theory Predictions of Salesmen's Performance.* JMR, Journal of Marketing Research. Aug 1974; 11, pg. 243
- Ployhart, R.E., Harold, C.M. *The Applicant Attribution-Reaction Theory (AART): An Integrative Theory of Applicant Attributional Processing.* International Journal of Selection and Assessment. Vol. 12. No.1-2 March/June 2004.
- Ployhart, R.E. *Staffing in the 21st Century: New Challenges and Strategic Opportunities.* Journal of Management, Vol. 32 No. 6, December 2006 pg. 868
- Predmore C. E., Bonnice, J. G. *Finding Good Telemarketing Sales and Service People.* Journal of Professional Services Marketing; 1996; 14, 1; pg. 157

- Reda, B., Dyer, L. *Finding Employees and Keeping Them: Predicting Loyalty in the Small Business*. Journal of Small Business and Entrepreneurship 23, no. 3. 2010: pp. 445-460
- Reda, B., Dyer, L. *Making Sense of Selection: Reactions to HR Practices in Small Organizations*. Entrepreneurial Practice Review. Volume 1 Issue 2 Winter 2010. pp.4-12
- Rentz, J.O, Shepherd, D.C., Tashchian, A., Dabholkar, P.A.,Ladd, R.T. *A Measure of Selling Skill: Scale Development and Validation*. The Journal of Personal Selling & Sales Management; Winter 2002; 22, 1; pg. 13
- Richardson R. *Selling and Sales Management In Action: Measuring the Impact of Turnover On Sales*. The Journal of Personal Selling & Sales Management; Fall 1999; 19, 4; pg. 53
- Rollag, K. *The Impact of Relative Tenure On Newcomer Socialization Dynamics*. Journal of Organizational Behavior. 25, 853–872. 2004
- Rose R.C., Kumar, N., Pak O.G. *The Effect of Organizational Learning On Organizational Commitment, Job Satisfaction and Job Performance*. Journal of Applied Business Research; Nov/Dec 2009; 25, 6; pg. 55
- Ryerson, A. *Pharmaceutical Sales Performance: A Proposed Study Measuring Behavioural Aspects of Self-Efficacy as Compared To General Self-Efficacy*. International Journal of Pharmaceutical and Healthcare Marketing. Vol. 2 No. 3, 2008. pp. 181-194
- Smither, J.W., Reilly, R.R, Millsap, R.E., Pearlman, K., Stoffey, R. *Applicant Reactions to Selection Procedures*. Personnel Psychology; Spring 1993; 46, 1; pg. 49
- Steers, R.M. *Antecedents And Outcomes Of Organizational Commitment*. Administrative Science Quarterly. 1977. Vol. 22 No. 1, pp. 46-56.
- Sujan, H., Weitz, B.A., Sujan, M. *Increasing Sales Productivity By Getting Salespeople To Work Smarter*. The Journal of Personal Selling & Sales Management; Aug 1988; 8, 2; pg. 9
- Townsend, K. *Recruitment, Training and Turnover: Another Call Centre Paradox*. Personnel Review. Vol. 36 No. 3, 2007. pg. 476-490
- Tung Liang Hsiung, An Tien Hsieh, *Newcomer Socialization: The Role of Job Standardization*. Public Personnel Management; Winter 2003; 32, 4; pg. 579
- Walker, O., Churchill, G., Ford, N. *Motivation and Performance in Industrial Selling: Present knowledge and Needed Research*. Journal of Marketing Research, 14, 2. 1977. pp.156-168
- Yammarino, F.J., Dubinsky, A.J. *Salesperson Performance And Managerially Controllable Factors: An Investigation of Individual and Group Work Ethics*. Journal of Management; Mar 1990; 16, 1; pg. 87

Contact-Sales Center Performance
1. Prior Experience
<p>* 1. How long have you been an outbound sales representative for Corporation? (Please answer in months)</p> <input type="text"/>
<p>* 2. Have you ever worked in an outbound sales call center position prior to working for Corporation?</p> <p><input type="radio"/> Yes</p> <p><input type="radio"/> No</p>
<p>* 3. Have you ever worked in an inbound sales call center position prior to working for Corporation?</p> <p><input type="radio"/> Yes</p> <p><input type="radio"/> No</p>
<p>* 4. Have you ever worked in a customer service call center position prior to working for Corporation?</p> <p><input type="radio"/> Yes</p> <p><input type="radio"/> No</p>

Contact-Sales Center Performance

2. Organizational Commitment

* 1. Please indicate your level of agreement with the following statements

	Strongly disagree	Moderately disagree	Neither agree nor disagree	Moderately agree	Strongly agree
I am willing to put in a great deal of effort to deliver more than what is expected of me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I really care about the success of the organization.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel a great deal of loyalty to this organization.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am proud to tell others that I am part of this organization.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The organization inspires me to do the best I can.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel this organization's problems are also my own.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This organization deserves my loyalty	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel like part of a group that cares about me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would leave the organization if another opportunity came along.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would refer friends to this organization.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Contact-Sales Center Performance

3. Selection Methods

1. In the following section, please indicate your level of satisfaction that the selection methods used during your recruitment with _____ Corporation allowed you to demonstrate your knowledge, skills and abilities. If the selection method was not used, simply check the "method not used" box.

	Very satisfied	Fairly satisfied	Neither satisfied nor unsatisfied	Fairly unsatisfied	Not at all satisfied	Method not used
Phone interview with HR representative(s)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Phone interview with CSC representative(s)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Phone interview with HR and CSC representative(s)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In-person interview with HR representative(s)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In-person interview with CSC representative(s)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In-person interview with HR and CSC representative(s)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Written automotive knowledge test	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Verbal automotive knowledge test	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Written comprehension test	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Verbal comprehension test	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Written grammar and spelling test	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Verbal grammar and spelling test	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Contact-Sales Center Performance

4. Performance

*** 1. For each of the following aspects of sales performance, please rate how you feel your actual performance measures up in comparison to your colleagues.**

	Weak	Below average	Average	Above average	Excellent
Your ability to convince a client to purchase an ad	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your ability to counter a client's objections	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The motivation to achieve your sales objectives	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The consistency of your overall effort	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The consistency of your sales performance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. In the following section, please rate how accurately the results of the metrics listed below reflect your ability and potential to succeed as an outbound sales representative.

	Highly inaccurate	Fairly inaccurate	Neither accurate nor inaccurate	Fairly accurate	Highly accurate
Your sales per hour results	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your revenue per ad results	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your number of calls per hour	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your total revenue vs objective results	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your closing rate results	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 3. In order to establish a link between sales performance and the elements examined in this survey, we will require you to include you AVUS/Ulysses identification number(s) for comparison purposes. You answers to this survey will not be shared with anyone other than the researcher and will never be used for any other purpose outside the scope of this study. Once your answers to this survey have been matched with your performance metrics, your identification numbers will be removed before the analysis is carried out. If you have any questions, please refer to the cover letter enclosed.**