#### Death of a salesman: Birth of a knowledge broker

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### Abstract

Call centers have emerged as an important sales channel for consumers, especially for infrequently purchased goods and services. In the internet age there is reduced information asymmetry which substantially changes the role of sales agents working in inbound call centers. From the results of this research it is apparent that the operational strategy adopted by sales call center needs to be carefully selected. Furthermore, there is evidence that the predictors of sales performance are different than for a traditional sales environment.

# Keywords

Call center, information asymmetry, sales performance measures, operational strategy

One of the most neglected areas in sales research is the role played by sales agents in inbound call centers. The sales role in an inbound call center is different from the traditional sales job. Management therefore has to manage these sales agents differently from the normative approach. The purpose of this paper is to examine the predictors of sales agent performance in inbound call centers.

The internet has changed the way in which consumers purchase products and services by way of re-intermediation of the roles that manufacturers, retail sales persons and intermediaries play. This is particularly true for infrequently purchased items where consumers face additional risk (Coltman, Devinney, Latukefu, & Midgley, 2001; Kracht & Wang, 2010). The internet has not only changed the roles but created new channels of distribution and even a new set of intermediaries, e.g. comparison websites (Laffey & Gandy, 2009).

Consider the example of a consumer purchasing a domestic appliance now as compared to 25 years ago. Historically, the consumer would seek information about competing brands by way of asking friends, family and colleagues. This would be used to generate a shortlist which would be the basis of visiting retail outlets where pricing, features and delivery details could be established, and a final purchase decision made. The sales person played a significant role in affecting the purchase decision in the scenario.

Today, information from friends, family and colleagues would initiate a search of manufacturers' websites where very detailed information on features could be sought. This would probably be supplemented by a visit to retail or comparison websites where prices, features and other details for competing products could be directly compared. The consumer then has several options in terms of purchasing the product through a variety of channels, viz. traditional retailer, on-line or via a call center (Coelho & Easingwood, 2008; Rhee, 2010). The influence of the salesperson is significantly reduced in this scenario and their role changed completely.

This example serves to illustrate how the internet has resulted in a breakdown of the information asymmetry between buyer and seller (Coltman et al., 2001; Sharma, 2007). In this paper we explore the consequences of this by examining the predictors of salesperson performance in the relative new and under-researched channel of inbound sales call centers.

#### **Background and Development of Hypotheses**

#### Call Centers

In 2006 it was estimated that there were 11,000 (19.3% of total) call centers employing over 475,000 agents (15.5% of total) in the retail and distribution sector in the US (Morrell, 2006). In the same report it was estimated that 73.3% of call center activity is the handling inbound calls. Inbound sales call centers are more common for infrequently purchased goods (e.g. appliances, personal computers) and services (e.g. airline tickets, hotels, car rental).

### Call Center Management

Traditionally, call centers have been managed using Taylorist methods (Bain, Watson, Mulvey, Taylor, & Gall, 2002). As such, there has been considerable emphasis for call center agents to minimize the average handle time (AHT) of calls as this in turn minimizes the number of agents required in the call center (Dwyer & Fox, 2006). This focus has even been applied to sales call centers where Eveleth and Morris (2002) argued that "higher performers tended to have shorter more action-oriented calls and took more calls per hour." (pp.36).

Batt and Moynihan (2002) suggest alternative call center production models. The mass production model would correspond to the Taylorist approach while the professional service and mass customization models adopt a more customer focused approach that would be more appropriate to a sales call center. This would shift the performance metric away from AHT toward customer satisfaction and sales performance. Such a shift is compatible with the principles of lean management which have been successfully applied to call centers (Jones, Medlen, Merlo, Robertson, & Shepherdson, 1999; Marr & Parry, 2004; Piercy & Rich, 2009). Under this approach, AHT is a consequence of the processes used and does not act as the primary driver of performance.

We suggest that AHT should be partitioned into two components. Firstly, there is the selling time in which the sales agent attempts to close the sale. If successful, this would result in a second component, administrative time, in which up-selling, cross-selling and the completion of transaction details occurs.

### Sales Performance Measures

Two measures of sales performance are endemic to sales call centers. Firstly, the proportion of calls resulting in sales, known as the conversion rate, is a key indicator of the effectiveness of the sales agents. Secondly, the average revenue per call (ARC) measures the productivity of the sales agents. Because of the consultative nature of the sales task faced by call center agents, we argue that a longer selling time will result in both a higher conversion rate and a higher ARC. Conversely, because many customers view the processes of up-selling, cross-selling and "completing the paperwork" as tedious, we argue that increasing administrative time will reduce both the conversion rate and ARC. The following hypotheses are thus posited:

# H1a: Selling time increases sales performance

# H1b: Administrative time decreases sales performance.

# The Sales Process

One of the most widely accepted paradigms in the sales discipline is commonly referred to as the 'seven steps in selling". These steps are (1) prospecting (2) pre-approach, (3) approach, (4) presentation, (5) overcoming objections, (6) close, and (7) follow-up (Moncrief & Marshall, 2005). For inbound sales call centers, because of reduced information asymmetry, the salesperson's role is not that of a persuasion agent but rather one of a consultant and implementation agent to the customer. Thus, steps 1 to 4 are of little importance to sales agents in a call center. As a consequence, for steps 5 and 6, adaptive selling techniques become

particularly important for salespersons answering customer sales queries to effectively provide them with competent solutions (Fujun, Jian, Chang-Tseh, & Jeng-Chung, 2007; Sharma, 2007).

### Tenure

There have been many studies in recent years (Franke & Park, 2006; Fu, 2009; Jaramillo & Grisaffe, 2009; Rapp, Ahearne, Mathieu, & Schillewaert, 2006) confirming that a salespersons' experience positively affects sales performance. Most of these studies were conducted in conventional sales settings on not one in which reduced information asymmetry prevails.

Selling steps 1 to 4 usually improve with experience. We propose that adaptive selling has become the key skill needed to overcome objections and to close the sale (Eveleth & Morris, 2002). Adaptive selling involves the acquisition, analysis and the use of customer information and these skills can be mastered in a relatively short time period. Franke and Park (2006) found that salespeople's experience is positively correlated with adaptive selling and performance. Detailed product knowledge greatly enhances sales agent's ability to establish the context and provide a sales solution. Again, product knowledge can be acquired in a relatively short period of time. This implies that in a sales world where there is lower information asymmetry, experience is likely to play a less important role. We therefore posit the following hypothesis:

H2a: Tenure has a smaller effect on sales performance than does selling time

H2b: Tenure has a smaller effect on sales performance than does administrative time.

# Methodology

# Sample

In order to test the hypotheses, data was collected from a single call center dedicated to sales. The organization sells electronic equipment including computers, printers, other peripherals, and supplies to the individual and small business markets. This medium-sized call center (approximately 150 agents) is located in the U.S. The detailed data for all agents were collected for seven days.

# Measures

Sales performance for each agent was measured by two variables. Conversion rates were measured as a proportion of total handled calls resulting in sales and ARC (based on total number of calls handled) was measured for each agent. Agent tenure was measured as the number of days elapsed since the hire date. Unfortunately, it is impractical to measure selling and admin time of each agent directly. Therefore, proxies were used to this end. The selling time for each agent was taken as the average handle time for unsuccessful calls (e.g. calls that did not resolve in a sale). Such calls would not involve any administrative activities that are necessary subsequent to a sale and, thus, represent a proxy for pure selling time. Administrative time per agent was calculated as the difference between the average handle times of successful calls (e.g. calls that resulted in a sale) and the average handle time for unsuccessful calls (i.e. selling time).

#### Model

Hypotheses H1a and H1b are represented by casual links between selling time and administrative time to the two performance measures. Hypotheses H2a and H2b are represented by causal links from tenure to both conversion rate and ARC. Once a sale has been made (i.e. a successful conversion has been achieved), the opportunity for selling additional products and services exists and, thus, a causal link between conversion rate and ARC is included in the model. Although, no hypotheses have been generated from the literature in this regard, it is likely that tenure could affect both selling and administrative times. These two causal links are added to the model for the sake of completion.

### Method of Analysis

The model is estimated using partial least squares regression (PLS). PLS was chosen for the following reasons: 1) it deals with complex casual links and inter-relationships between the variables; 2) it is a preferred method when developing a predictive model; 3) it does not impose assumptions regarding variable distributions; and 4) it may be used for model estimation with small samples.

#### Results

A summary of descriptive statistics pertaining to the sample is presented in Table 1.

	Mean	Median	SD	Min	Max	Conversion	ARC	Tenure	Sell Time	Admin Time
Conversion (%)	27.48	27.31	5.95	8.33	50.00	1.00				
ARC (dollars per call)	150.28	146.86	55.31	16.7	326.64	$0.58^{*}$	1.00			
Tenure (days)	374	179	328	12	908	0.08	$0.20^{*}$	1.00		
Selling Time (minutes per call)	6.58	6.23	1.96	1.56	14.66	$0.54^{*}$	0.38*	-0.12	1.00	
Admin Time (minutes per call)	19.98	18.74	7.41	5.05	48.14	-0.68*	-0.36*	-0.23*	-0.20*	1.00

**Table 1** Descriptive statistics and correlations for variables in the study <sup>1</sup>

*Selling Time* average selling time per call; *Admin Time* average admin time per call; *ARC* average revenue per call; *Conversion* proportion of successful calls in the total number of calls handled.  $^{1}n = 128$ . \* *p*-value < .05 for a two-tailed test.

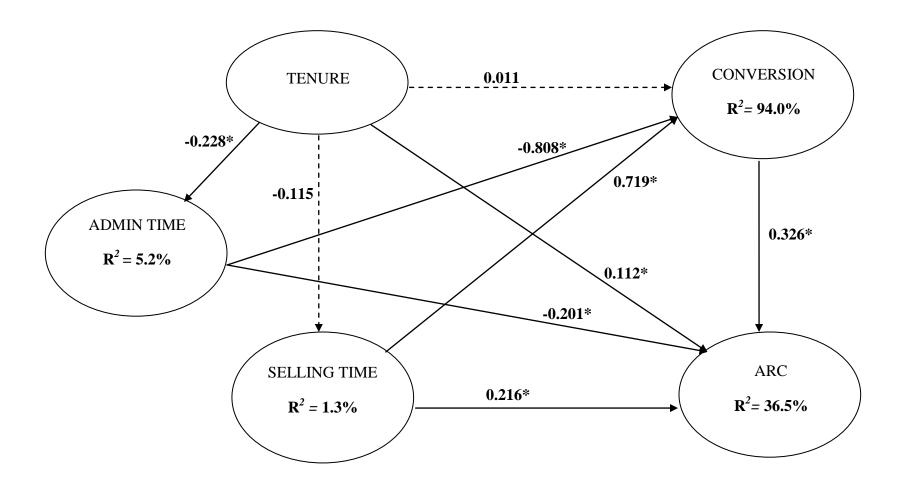
The estimates of the PLS model are presented in Figure 1. The path coefficients, direct, indirect and total effects are summarized in Table 2 and the variable importance in projection are presented in Figure 2. The results clearly support all hypotheses. Furthermore, a significant relationship between conversion rate and ARC was confirmed. Finally, a significant positive relationships between tenure and administrative time was found while no significant effect of tenure on selling time was identified.

	Direct Effects	Indirect Effects	Total Effects
Tenure -> Admin Time	228*		228*
Tenure -> Selling Time	115		115
Tenure -> Conversion	011	.101	.090
Tenure -> ARC	.112*	.050	.162*
Admin Time -> Conversion	808*		808*
Admin Time -> ARC	201*	264	464*
Selling Time -> Conversion	.719*		.719*
Selling Time -> ARC	.216*	.235	.451*
Conversion -> ARC	.326*		.326*

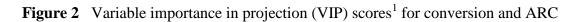
**Table 2** Path coefficients of the estimated PLS model for dedicated sales call centers

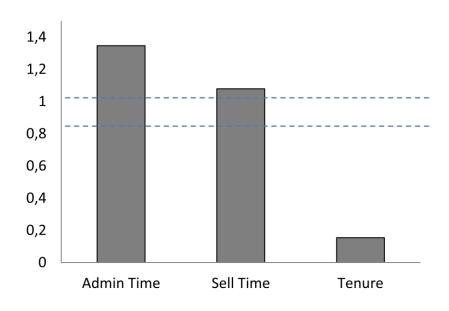
<sup>1</sup> Using bootstrap with 1000 resamplings and 100 iterations. \* p-value < .05

Figure 1 Estimation results of the revised adaptive selling model for a dedicated call center.



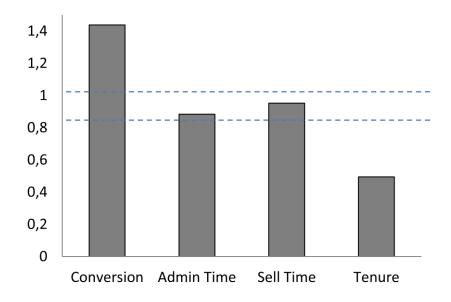
\* p-value < .05 for a two-tailed test.





Conversion

Average revenue per call (ARC)



<sup>1</sup>Variables with VIP scores >1 are considered very important, scores between 0.8 and 1 of moderate importance while scores <0.8 indicate variables that are candidates for exclusion from the model.

### Conclusions

Sales agents working in inbound call centers operate in a world of reduced information asymmetry. As such, they are dealing with relatively well-informed customers and thus their prospecting, approach and presentation skills are of little value. Our results confirm that their experience is not a major driver of either conversion rate or ARC as indicated by the low variable importance in projection scores illustrated in Figure 2. There will still be gaps in customers' information and sales agents' product knowledge becomes key to overcoming objections and in closing the sale. Furthermore, because the products are infrequently purchased, customers are less likely to be familiar with doing business with the selling organization. Thus, the role of the sales agent becomes one of engendering trust in organization to efficiently execute the sale (completing the paperwork, fulfilling the order accurately, delivering the product promptly and living up to the warranties). This explains why the longer the selling time, the greater their success will be. This also explains the importance of minimizing administrative time.

The results have important implications for the management of inbound sales call centers. At an operational level, the focus on minimizing AHT is clearly inappropriate. A Taylorist approach should be avoided and either a mass customization or professional service model should be considered. At sales management level, in-depth product knowledge (even competitive product knowledge) is essential. Furthermore, sales agents' ability to engender trust in the selling organization is important. This should form the basis of recruiting and training of sales agents.

Additional research to confirm these findings in other product markets is important with a view to developing B2C sales strategies to cope with reduced information asymmetry.

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