The Impact of Perceived Selling Efficacy On Sales Person Escalation of Commitment

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Abstract

Salespeople have considerable autonomy in the choices they make with respect to both the types and amounts of firm resources they deploy in pursuing potential customer accounts. Building from an escalation of commitment theoretical framework, this research tackles the question of what factors play into salesperson resource allocation decisions and reports the results associated with two experimental studies conducted on practicing salespeople. The results of the study demonstrate that selling efficacy has important, yet mixed, effects on the salespersons' allocation of specific resources applied toward a sales opportunity. The article's broader contribution is to offer a preliminary glimpse into the levers which come to influence how and when salespeople apply personal and corporate resources in pursuit of new business.

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Frontline salespeople have become increasingly empowered in recent years to make important decisions in terms of how to allocate company resources to potential accounts (Stevens and Kinni 2007; Weitz and Bradford 1999). Moreover, given that sales force expenditures typically constitute the largest share of marketing costs, the quality of these decisions can have a significant effect on a company's return on these investments. It is in this spirit that today's salesperson should be both an *effective* and *efficient* steward of the firm's scarce financial and human resources. To this point of its evolution, however, the sales stream of research within the marketing literature has had a largely disproportionate interest in salesperson "effectiveness" with little attention paid to the salesperson's *efficiency* in allocating scarce personal and corporate resources – particularly when pursuing new business opportunities.

Following the tenets of escalation of commitment theory, we argue that in allocating resources in the pursuit of sales opportunities, salespeople can "…become locked into a course of action, throwing good money after bad or committing new resources to a losing course of action" (Staw 1981, p. 578). In particular, we propose that the "competitive intensity" of a selling situation will systematically affect salesperson resource allocation decisions over time. In addition, we demonstrate that the salesperson's confidence in his/her selling ability (i.e., "selling efficacy") and the amount of information on customer opportunities they have shared with their management team (i.e., deal "disclosure") exacerbates the escalation of commitment effect. In examining the role of these variables in the pursuit of sales opportunities, the present article provides much needed insights relative to extant research as it relates to the efficiencies associated with salesperson decision making.

Escalation of Commitment and its Impact on Sales Representatives

Escalation of commitment provides a useful lens through which to better understand how salespeople might make decisions in pursuing customer opportunities – for example, how to allocate resources when the number of competitors pursuing the same sales opportunity increases or decreases (Brockner 1992). Defined as the tendency of decision makers to persist with failing courses of action (Staw 1981), escalation of commitment has been found to impact decision making in situations such as new product development (Schmidt and Calantone 2002), managerial strategy and policy-setting, accounting and financial reporting (Heath 1995; Zardkoohi 2004), and production and inventory planning (Bobocel and Meyer 1994).

In practice, sales representatives rarely get the opportunity to sell to an account without competition (Page 2002), or where there is not some "incumbent vendor" already servicing the account. In fact, the number of competitors frequently changes over the course of a typical sales cycle – especially in B2B markets (Dudley and Narayandas 2006). Thus, "competitive intensity" is defined for the purposes of this article as the number of potential suppliers competing for a customer account at a specific point in time during the sales cycle given a specific sales opportunity (Ang 2008).

The dynamic nature of competitive intensity creates situations where sales representatives are constantly faced with classic loss or gain situations each time they begin a sales cycle with a prospective customer, particularly if the potential of the account is lucrative (Page 2002). Upon their initial interactions with the prospect early in the sales cycle, the salesperson will form a reference frame that will then be used to evaluate and compare events as they occur across the sales campaign. A common example is when customers decide to expand (or shrink) the consideration set of potential suppliers as they move through the purchasing process. Borrowing

from the tenets of prospect theory (Kahneman and Tversky 1982), it is hypothesized that an expanding consideration set, or increasing "competitive intensity", is likely to be evaluated by the salesperson as an increase in the chances of losing the account (a loss frame), which, in turn, should result in a commensurate increase in the resources allocated to the potential customer (Harrison, Hall, and Nargundkar 1993). In contrast, decreasing competitive intensity should be viewed by the salesperson as a signal that the probability that the account / sales opportunity will close in their favor is improving (a gain frame), which should, in turn, lead to a decrease in resources allocated to the sales opportunity.

Such allocation decisions involve a variety of resources at the sales representatives' disposal. At the most basic level, sales representatives are able to commit more (or less) of their selling time to specific sales opportunities as the sales cycle progresses (Marshall, Moncrief, and Lassk 1999). In addition, front-line salespeople are often given significant latitude in setting prices which *de facto* means that they have control over financial resources that can be allocated to an account. Finally, a critically important input regarding customer acquisition is the need for the coordination of human resources that typically span a firm's various functional areas (e.g., Cespedes 1992; Dickinson and Lere 2003). These types of human resources are best labeled as "sales support", because the lowest common denominator associated with all of them is that they are activities which support the salesperson in moving the customer toward a favorable decision on some purchase or "deal" (Sujan 1999; Weitz and Bradford 1999). Examples of sales support resources include technical assistance or troubleshooting from service personnel; customized contracts, financing, or legal help; and/or tailored supply chain, delivery, or installation solutions for the deal in question, amongst others (Plouffe and Barclay 2007).

Coupling the prospect view of escalation of commitment with the various resources highlighted above, we hypothesize:

> H1a,b,c: Relative to decreasing competitive intensity, increasing competitive intensity will have a more positive rate of change in: (a) selling time expended, (b) level of discount offered, and (c) the amount of sales support allocated to a given sales opportunity.

The Influence of Selling Efficacy on Competitive Intensity

While there are obvious differences in a person's overall self-confidence, most scholars agree that self-efficacy is best operationalized in a task-specific manner (Bandura 1997; Whyte, Saks, and Hook 1997). Consistent with this viewpoint and the extant literature, *selling-efficacy* is defined as a sales representative's confidence in his/her capability to organize and execute the actions required to successfully sell products and/or services to customer accounts (Sujan, Weitz, and Kumar 1994; Yeo and Neal 2006). As such, highly self-efficacious salespeople should be more likely to have a higher degree of confidence in making "on-the-fly" adjustments in relation to the level of allocated selling resources devoted to a specific sales opportunity.

Applications of prospect theory have investigated the impact of self-efficacy on human behavior, finding somewhat counterintuitive results. For people with high self-efficacy not-winning likely attenuates a loss frame. In contrast, for those with low self-efficacy, a gain frame is exacerbated by avoiding a loss (Aaker and Lee 2001; Bandura 1997; Yeo and Neal 2006). Thus, more effort is exerted by individuals who strongly believe in their own abilities – especially in times when performance feedback does not appear to match their goals (Bandura and Cervone 1986; Whyte, Saks, and Hook 1997). Furthermore, empirical research in contexts other than sales suggests that high self-efficacy strengthens the individual's predisposition toward the riskier behaviors associated with loss frames, as posited by prospect theory (Heath

and Tversky 1991; Krueger and Dickson 1994; Whyte, Saks, and Hook 1997). Based on this theoretical and empirical support we hypothesize:

> H2a,b,c – Salesperson selling efficacy strengthens the relationship between increases in competitive intensity and changes in: (a) selling time expended, (b) level of discount offered, and (c) the amount of sales support allocated to a given sales opportunity.

Methodological Overview and Approach

Method

Selling Scenario Design – The selling scenarios used in the present study were developed based on input and discussions with both sales representatives and sales managers at "PrintCo" in an attempt to develop a realistic account development situation (this firm's name disguised at management's request). PrintCo is a Fortune 1000 firm specializing in B2B printing and print management services. A significant amount of time was invested over multiple interviews with PrintCo's salespeople and management team in the development of the fictitious, four decision-period sales scenario used in the study (Kirk 1995; Tashakkori and Teddlie 2003). A draft of the sales scenario was constructed based on this feedback, and a pretest was conducted with members of the sponsoring firm's senior-level management team; these executives were not used in the final study. Based on these results, two additional rounds of back-and-forth feedback and edits were conducted to further revise the sales scenarios.

The selling scenario consisted of information about a potentially large customer account interested in consolidating its print vendors such that the salesperson respondent's firm had the opportunity to become the sole supplier of this fictitious customer's printed materials, document management needs, etc. The final scenario consisted of a "sales cycle" consisting of four decision periods whereby the PrintCo salespeople had to select both the type, and level, of resources that they would allocate to the fictitious customer opportunity at each point in the sales cycle. Once the subject had internalized the requisite sales opportunity details at the current stage of the fictitious sales cycle, they made their resourcing decisions for that period, with the scenario then progressing to the next decision period, complete with new details about how the account and "deal" was evolving, and so forth. Thus, each subsequent decision period concluded with the option to select the appropriate levels of resources that each responding salesperson felt necessary to apply to the sales opportunity.

PrintCo sales representatives were randomly assigned to either an increasing, or decreasing, "competitive intensity" condition. In the increasing competitive intensity condition, the number of competitors increased by one after each round of decision making. Specifically, participants were initially told in the first decision period that PrintCo was the only company being considered as the new supplier of the customer's printing and document management needs. After selecting the resource allocations that s/he elected to make given the details provided in the first decision period, the participants were provided with an updated scenario that mentioned that the customer was now evaluating a second potential supplier (i.e., in round 2). An additional supplier was introduced into the scenario after each decision period such that by the final round of the scenario (round 4), the customer was evaluating four potential suppliers.

In the decreasing competitive intensity condition, participants were given an opening scenario that stated that the customer was evaluating five potential suppliers including PrintCo. In each subsequent round, the number of competitors being evaluated decreased by one such that

the customer was evaluating 2 suppliers (PrintCo and one other firm) in the final round (round 4) of the scenario. Appendix A offers all details associated with the various sales scenarios.

Sample and Procedure – Each salesperson in PrintCo's financial division sales force (*n*=149) was e-mailed the following: (1) a letter from the authors describing the study in high-level, basic terms; (2) a letter from PrintCo's CEO endorsing the legitimacy of the study; and (3) a link to the secure, third-party website being used to administer the study. These e-mails were sent from a PrintCo e-mail address but acknowledged that the study was a university-sponsored research project. Salespeople were promised anonymity to encourage frank and candid responses. Consistent with Dillman's (2000), reminder emails were sent to all non-responding salespeople. Completed responses were obtained from 123 sales representatives in the financial services division (for an 82.3% response rate) at the conclusion of data collection for the basic, initial survey (i.e., with the selling efficacy measure, descriptors, etc.).

Approximately six weeks later, the fictitious selling scenario outlined above was sent to all salespeople in the financial division using the same procedures noted above. Employee identification numbers were then used to match responses from the initial survey with responses to the sales scenario. The final matched sample was 109 respondents, representing approximately 73% of the entire financial division.

Measures

Selling-Efficacy – Selling-efficacy was measured by using the following 7-point items (1 = "Strongly Disagree;" 7 = "Strongly Agree"): "It is difficult for me to pressure customers (reverse coded)," "My temperament is not well suited for selling (reverse coded)," "I know the right thing to do in selling situations," "I am good at finding out what customers want," and "It is easy to get customers to see my point of view" (as per Sujan, Weitz, and Kumar 1994). All five items loaded at .60 or higher on the appropriate factor with AVE values of 50% or higher (63.8%). The reliability for selling-efficacy was also acceptable ($\alpha > .70$).

Dependent Measures

Selling Time – The first resourcing decision pertained to the amount of the salesperson's selling time to be allocated to the prospective customer. This was measured using a sliding scale on the study website that ranged from 0 to 100%. More specifically, the respondent instructions here were as follows: *What percentage of your SELLING TIME over the next 3-4 weeks would you allocate to pursuing this deal (0% of my selling time - 100% of my selling time)? Move the slider below to represent the amount of involvement you would request. Further to the left represents less selling time while further to the right represents more selling time. You must move the slider to have the question register your answer*. This measure was used for each of the four decision periods.

Level of Discount – The second resourcing decision respondents made concerned the "level of discount" (i.e., pricing concessions) they felt appropriate given the details of the deal provided in the decision period. The firm we examined (PrintCo), similar to many B2B and industrial firms, affords its salespeople considerable discretion and latitude in negotiating pricing with individual accounts via "discounts off of list price". Thus, in the first decision period, respondents were asked to indicate the amount of discount (if any) they might apply from 0 to 100% of the list price for the deal in question. Specifically, the respondent instructions here were: *How much of a DISCOUNT (as a percentage) off of the list price would you be willing to offer? Move the slider below to represent the amount of discount you would offer. Further to the left represents less of a discount while further to the right represents more of a discount. You must move the slider to have the question register your answer*.

In subsequent decision rounds, respondents were asked to indicate the incremental amount of additional discount they would offer the account at that time. In this regard, at each decision period, the survey software offered the respondent the following: *So far you have indicated that you would provide a discount of X%* (with X% being a cumulative, to-that-point of the sales cycle discount value that the survey software displayed based on the sum of all previous discounts the respondent had already offered in previous decision periods). *Please indicate the amount of additional discount off of list price you would apply at this point*.

Sales Support – A four-item sales support measure was developed based on input by PrintCo's senior management team. PrintCo salespeople have at their disposal Product Tech, Business Development and Technology Support personell. Respondents were thus asked to indicate the level of involvement they would bring to bear on the fictitious sales opportunity for each of the three sales support resources noted above by moving a slider for each item from 0% ("Not Involved") to 100% ("Very Involved"). Given that the large accounts that PrintCo services generally require involvement from all three support areas and that the reliability of the four items was acceptable ($\alpha = .778$), these items were averaged to form an overall sales support measure.

Testing the hypotheses in the study require an investigation of the rate of change in each sales resource across the sales cycle and customer engagement. Change in Selling Time (CST), Change in Discount (CD), and Change in Sales Support (CSS) were calculated by subtracting each respondent's decision period 1 allocations from their decision period 4 allocations divided by decision period 1, resulting in a percentage increase in each of the respective resource areas.

Results

Tests of the Hypotheses – The results of a multivariate regression analysis show that an increase in competitive intensity directly impacts the amount of selling time a sales representative allocated to the sales opportunity ($\beta = .423$, $p < .05$). Specifically, participants increased selling time by an average of 78% in the increasing competition condition versus an increase of 52% in the decreasing condition. Likewise, participants significantly increased their discounts offered to the customer by 66% in the increasing competitor condition versus a 41% increase when the number of competitors decreased ($\beta = .481$, $p < .05$). Finally, the direct effect of competitive intensity on sales support decisions was significant, but not in the direction hypothesized ($\beta = -.369$, $p < .10$). In the increasing competitor condition, participants decreased the amount of sales support that they would bring to bear by 19% versus a slight decrease of just 1% in the decreasing competitor condition. Thus, the results support H1a and H1b, but not H1c.

Results of the interaction analysis showed a significant competitive intensity × selling efficacy interaction on selling time ($\beta = .935$ $p < .05$). To further dissect this interaction, we conducted a median split of selling efficacy and graphed the means for both high and low selling efficacies as per Figure 1. The results show that salespeople with high levels of perceived selling efficacy increased their selling time by 110% between periods 1 and 4 in the increased competition condition. Conversely, salespeople with low perceived selling efficacy increased selling time by only 45% in the increasing competitor condition. This within-group difference was significant ($F(1, 53) = 2.88$, $p < .10$). Thus, H2a is supported.

---------- Insert Figure 1 about here ----------

The competitive intensity × selling efficacy interaction on customer discounts offered was also significant ($\beta = .739$, $p < .01$). As illustrated in Figure 2, salespeople exhibiting high selling efficacy increased their discount offered by 85% in the increasing competitive intensity condition versus an increase of just 51% for reps with low selling efficacy ($F(1, 53) = 2.68$, $p <$

.10). Thus, H2b is supported. The competitive intensity × selling efficacy interaction on the amount of sales support allocated was not significant ($p > .10$); H2c was therefore not supported.

---------- Insert Figure 2 about here ----------

While the primary focus to this point of the analysis was on the increasing competitive intensity group, a test of within group differences for the decreasing competitive increasing intensity group noted a significant difference between high and low levels of selling efficacy. Specifically and as captured in Figure 1, low selling-efficacy salespeople made larger increases in selling time (70% increase) when the competition for a particular account decreased versus high selling efficacy reps who increased their selling time by 41% as the competition increased ($F(1, 54) = 2.79$, $p < .10$). Similar results were found for discounting decisions with low perceived selling efficacy salespeople increasing discounts by 61% in the deceasing competition condition, whereas high selling efficacy reps increased discounts by just 21% in the same condition ($F(1, 54) = 5.61$, $p < .05$).

Discussion

The results provide fairly strong support for an escalation of commitment effect when salespeople pursue a large, and potentially lucrative, new customer. Interestingly, the escalation of commitment effect was most pronounced given the amount of selling time and discounting decisions that the salespeople allocated to the potential account when faced with increasing competition. However, this effect was not evidenced in resource decisions involving sales support. This suggests that sales representatives both view and, perhaps more importantly, allocate the resources at their disposal differently, and that sales support is not a resource that salespeople increasingly allocate in situations where the odds of winning the business decrease over time.

The interactions between competitive intensity and selling efficacy also illustrate the effect that overconfidence can play in situations where the odds of landing the account are decreasing. As posited by prospect and self-efficacy theory (Bandura 1977; Bandura 1997; Kahneman, Slovic, and Tversky 1982; Kahneman and Tversky 1979), the salespeople in the present study with high levels of selling efficacy were more likely to increase personal selling time and discounts offered when faced with increasing competition. This is an especially interesting finding given that prior research has found that selling efficacy is an important factor in selling *effectiveness* (i.e., 'performance', see Krishnan, Netemeyer, and Boles 2002; Wang and Netemeyer 2002). Finally, the results for the decreasing competition condition are interesting in that salespeople with low selling efficacy made larger increases in selling time and discounts offered, even as the chances of securing the business improved over time. This suggests that low selling efficacy sales representatives may be more likely to unnecessarily commit resources to accounts that were poised to buy regardless of these resourcing decisions, ultimately resulting in lower customer-level profit margins.

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Figure 1:
Interaction of Competitive Intensity and Selling Efficacy
On Changes in Selling Time

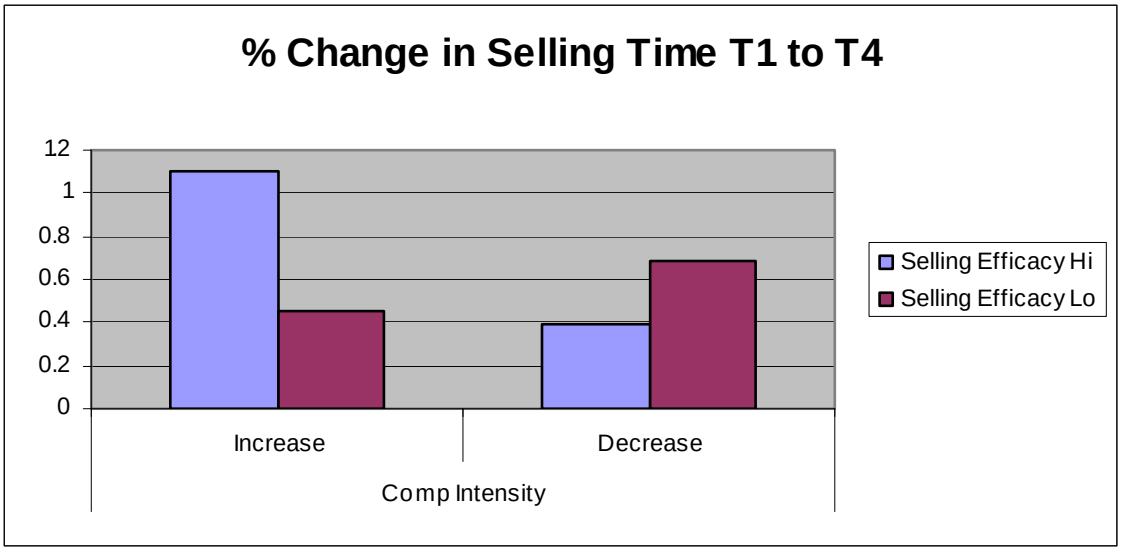

Figure 2:
Interaction of Competitive Intensity and Selling Efficacy
On Changes in Discounting