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ADAPTIVE SELLING, BUYER-SELLER SIMILARITY AND INTERMEDIATE SALESGOALS: A CAUSAL PATH ANALYSIS

by

Paul A. Dion

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ABSTRACT

This paper reports the results of a causal path analysis of a partial model of salesperson performance. The results were obtained by measuring both buyer and seller views of shared trade relationships. Adaptive selling was shown not to be a major influence on performance although it had some effect when mediated by salesperson resources. The links between performance and intermediate sales goals such as perceived similarity, expertise, trust and liking of the seller were significant. Perceived similarity of the seller was shown to be effective only when working through trust and liking. Lastly, buyer-seller similarity in weight, but not height, was strongly linked to sales performance.

INTRODUCTION

Weitz, Sujan and Sujan (1986) made the case that adaptive selling is important to salesperson success. What is unclear however is whether adaptive selling influences salesperformance directly or works through intermediate sales goals. Similarly, much has been said about the effect of buyer-seller similarity on performance but little is known about the causal linkage of this factor.

This paper describes a research project which examined both buyer and seller characteristics and the role these factors play in sales performance. Specifically the research addresses the following questions:

i) Does adaptive selling, as meassured by the Spiro and Weitz (1986) scale, influence sales performance directly or does it work through such intermediate sales goals as: perceived salesperson expertise, trust and liking of the seller by the buyer, buyer perception of the seller as being similar to himself (perceived similarity hereafter), and salesperson resources.

ii) Does perceived similarity influence salesperformance directly or does it work through buyer trust and/or liking of the seller?

iii) Does buyer-seller similarity on the objective personal traits height and weight (hereafter objective similarity) influence sales performance directly or does it work through buyer trust and/or liking of the seller?

BACKGROUND THEORY, LITERATURE AND RESEARCH HYPOTHESES

The Practice of Adaptive Selling

Aadptive selling is defined by Weitz, Sujan and Sujan (1986) as; "The altering of sales behaviour during a customer interaction or across customer interactions based on perceived information about the nature of the sales situation". Weitz et al. believe this to be important to sales success because it allows the salesperson to adapt the sales message and presentation to the specific needs of the buyer. Support for the practice of adaptive selling comes from Spiro and Perreault's (1979) findings that the influence tactics used by salespersons vary by situation.

Weitz et al. (1986) found that knowledge of a sales situation, and the most appropriate cognitive approach to that situation, positively impacts sales performance. This supports the practice of adaptive selling because

the fact that salespersons do indeed use knowledge about the sales situation is consistent with the adaptive selling concept.

Weitz et al. do not discuss whether the practice of adaptive selling directly impacts sales performance or works indirectly through intermediate sales goals such as perceived similarity and expertise, salesperson rsources and liking and trust of the seller. Weitz and Spiro (1986) conceptualize adaptive selling as in part composed of self-monitoring, empathy and social self-confidence. This similarity between the elements of their decomposition of adaptive selling and similarity, expertise, trust and liking is worth investigation. A null hypothesis might be stated as:

H1: The practice of adaptive selling is linked to sales performance directly.

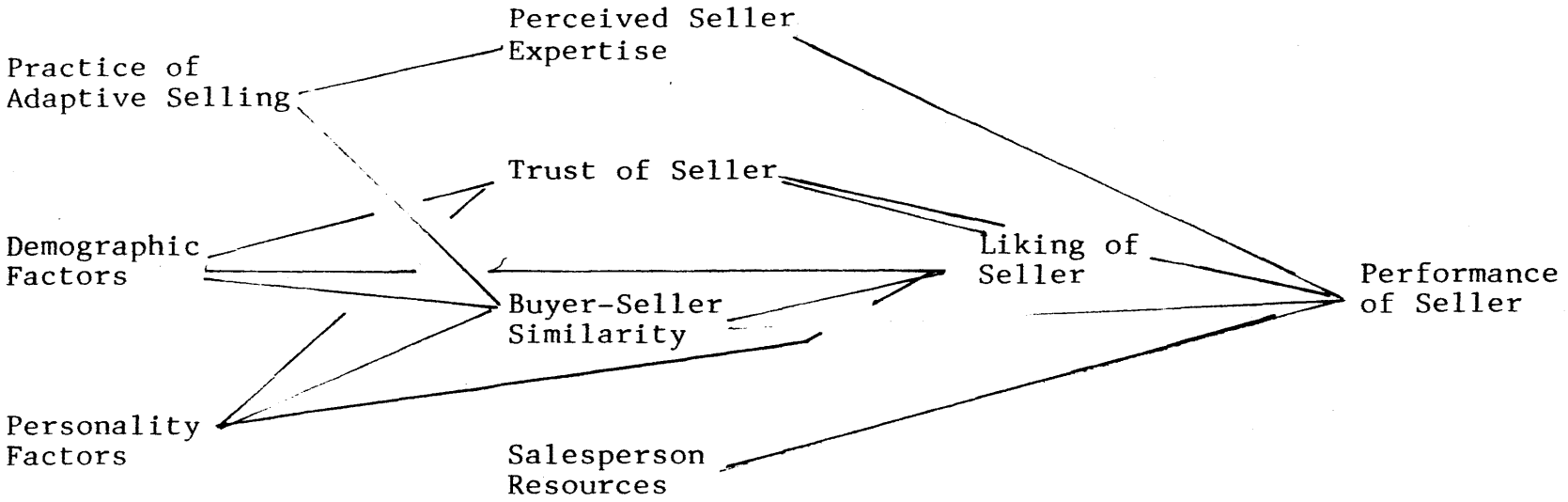
The integration of the adaptive selling concept into a partial model of salesperformance is shown in Fig. 1.

Figure about here

The Role of Buyer-Seller Similarity in Salesperson Success

The evidence favoring a positive role for buyer-seller similarity in sales performance (See Gadel 1964, Evans 1964 and Brock 1965) is only partially relevant because much of it deals with retail transactions. Many authors have elaborated on the significant differences between the salesperson's role in the retail and industrial sales task (See Hakanson 1982). Some indirect eveidence relevant to the industrial market setting is provided by Mathews (1972). He found that players in his non-zero-sum prisoner's dilemma game who were matched by personality gave more

Fig. 1



Partial Model of Salesperson Performance

cooperative and adaptive responses. His work is relevant to research on industrial market buyer-seller dyads if one assumes that both situations involve some elements of conflict over transaction outcomes but require trust and cooperation between the transaction parties.

Disconfirming evidence is reported by Churchill, Collins and Strang (1975). They found that the relationship between sales performance and similarity, as measured by age, sex, race, height, education, religious and political preferences, was weak and statistically insignificant. Weitz (1981), in summing up dyadic similarity studies to that time, denied that research had established a link between similarity and sales performance.

The question as to whether sinmilarity (perceived and objective) works directly or via intermediate variables is apparently not addressed by the extant sales performance literature. It is hard to imagine however that the buyer would favor similar salespersons for their similarity alone. It might be expected that at least he or she would justify their actions to themselves in terms of liking and/or trusting the salespersn. A null hypothesis can be stated as:

H2: Buyer-seller similarity acts directly on salesperformance.

The integration of the adaptive selling concept into a partial model of salesperson performance is shown in Fig 1.

RESEARCH DESIGN, PROCEDURES AND MEASUREMENT of VARIABLES

Sample

Thirty-seven of the 60 active members of the National Association of Purchasing Management (NAPM) chapter of a small upper midwest city were

chosen to participate in the study. The criterion used to select the participants was whether or not they had been a buyer for at least one year and had dealt on a regular basis for at least one year with salespersons with whom they had an established trade relationship. To date 21% (36) of the possible buyer-seller dyads have responded.

On average the sample respondents had purhcased for 11.4 years were 35 to 39 years old, all were male, the average income was 30 to $35,000, 70% were married, 95% had finished college, (70% of these in a business discipline). A subsequent analysis revealed no significant differences between the sample respondents and the national average for NAPM members on these descriptors with the exception of the educational level. The salespersons had sold on average for 14.4 years, were 40 to 44 years old, all were male, the average income was 35 to $40,000, 95% were married, 80% had finished college (68% of these in a business discipline).

Pilot Test

All research data instruments which were not previously researched and established scales were pretested on a small pilot sample to assess their validity (on a content basis) and to ensure that they were unambiguous in meaning. No difficulties were reported.

Questionnaire Administration

Each of the buyers participating in the study was personally interviewed to brief him or her on the use of the research materials. The buyers were instructed to recruit the first five sellers to call on them who they had known for at least a year and with whom an established trade relationship was felt to exist. The buyer was instructed to stress the confidentiality of all respondents' responses when briefing salespersons.

The buyer gave each salesperson recruited a 25 item questionnaire concerning his view of the trade relationship which he or she shared with the buyer. When the salesperson had completed his or her responses they were to return it directly to the researcher using the stamped, self-addressed envelop included with the research materials.

Each buyer completed a question form on his or her personal demographics, and a 48 item questionnaire on his or her view of the trade relationship shared with each of the five salespersons recruited to the study.

Measurement of Research Variables

Each of the variables depicted in the research model (See Fig. 1) was measured by one or both of the buyer and seller questions forms. A description of the individual measures follows. With the exception of the personal demographic questions the response scale for all items was a seven point scale which read, "strongly agree", "agree", "slightly agree", "neither agree nor disagree", "slightly disagree", "disagree", "strongly disagree".

Perceived Similarity of Seller. This four item scale was administered to the buyer and yielded an Alpha coefficient of 0.88. A sample item read,"I view this salesperson as similar to me in many respects".

Perceived Expertise of Seller. A seven item scale was developed to be administered to buyers and yielded an Alpha coefficient of 0.85. A sample item read, "In terms of product knowledge I would rate this salesperson as an expert".

Liking of Seller/Buyer. A four item scale was administered to the buyers and yielded an Alpha coefficient of 0.94. A sample item read, "I like this

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salesperson as an indivdiual independently of our business relationship". A three item scale was administered to the salespersons. It yielded an Alpha coefficient of 0.49. A sample item read, "I could imagine this buyer becoming a friend of mine".

Performance of Seller. A ten item scale tapped the buyer's perception of the salesperson's performance on the following 8 criteria:

i) anticipation by the buyer of future dealings with the salesperson's firm
ii) overall salesperson representation of his firm
iii) seller firm's share of buyer's purchase volume
iv) salesperson's service to buyer compared to competitors
v) salesperson firm's status as preferred supplier
vi) overall buyer satisfaction with the salesperson
vii) level of buyer interest in alternative suppliers
viii) salesperson's help in solving buyer purchase problems

The scale yielded an Alpha coefficient of 0.84.

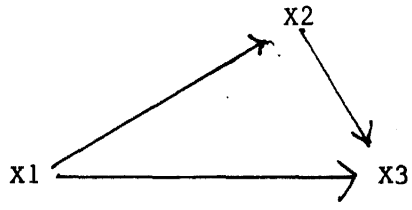
Perceived Trustworthiness of Seller This five item scale was administered to the buyer yielding an Alpha coefficient of 0.94. A sample item read,"I trust this salesperson".

Resources of Salesperson A five item scale was adminmistered to the buyer to measure the level of resources avalible to the salesperson. The Alpha coefficient was 0.71. A sample item read, "This salesperson has the resources in terms of support and products to make the sale".

Buyer/Seller Demographic Desciptors Questions on both the buyer and seller question forms recorded the respondent's age, sex, income, years of experience in buying or selling, marital status, height, weight, education level and type.

RESULTS AND DISCUSSION

In order to determine the paths of influence among the model variables a causal path analysis technique was employed. Asher (1976) describes a technique whereby zero order correlations between variables can be decomposed into direct and indirect influences or pathways between the two variables. If variable X1 is assumed to influence variable X3 both directly and indirectly, through X2, the correlation r13 can be decomposed as follows:



$$r12 = p13 + p12p23$$

Here p13 stands for the path coefficient representing the direct influence of X1 on X3. It signifies the variance in X3 directly attributable to X1. The product, p13p23, represents the size of the indirect influence of X1 on X3. The interesting point of analysis, given the research questions posed above, is the relative size of the direct and indirect effects. Although significance levels for individual coefficients are presented no formal test of the differences between coefficients is offered by Asher (1976). Another point which the reader should note is that the technique estimates the magnitude of the assumed causal influence but cannot prove causality. In this sense the term "causal path" is a misnomer.

The path coefficients were estimated using simple least squares regression after Asher (1976). One artifact of this technique is that the

size of the coeeficient between X and Y, pxy, is a function of which other variables are included in the analysis.

Influence of Adaptive Selling

Table I presents the causal path analysis results for the influence of adaptive selling on sales performance both directly and indirectly through intermediary variables.

Table I:
Path Coefficients for Adaptive Selling Influence on Intermediate Variables Salesperson Performance

Inter. Var.	Path. Coeff. Direct Link Adap. Sell. Sell. Perf.	Path Coeff. Adap. Sell. Inter. Var.	Path Coeff. Inter. Var. Sell. Perf.	Indirect Path col. 2 x 3
Perceiv. Seller Expertise	0.14	0.09	0.66*	0.06
Trust	0.09	0.15	0.73*	0.11
Perceiv. Simil. of Seller	0.15	0.08	0.61*	0.05
Buyer Liking of Seller	0.22	0.03	0.67*	0.02
Salesperson Resources	0.04	0.30	0.80*	0.23

* = prob. < 0.01

The results are noteworthy for a number of reasons. First, adaptive selling, as measured by the path coefficients, was not on the whole an important factor either in its direct effect on salesperson performance or indirectly through its influence on the intermediate sales goals. None of the path coefficients is significant although this may be due to the small

sample size. This result is counter to the assumptions of adaptive selling efficacy made by Weitz, Sujan and Sujan (1986).

Second, the mode of influence on the performance variable is not uniform across the intermediate sales goals. For salesperson expertise, perceived similarity and liking the direct link predominates even though it is weak. For trust of the seller and seller resources the indirect mode is equal (in the case of trust) or superior, (as in the salesperson resource case). An explanation of this pattern, excluding the trust variable, is that buyer liking of the seller, perceived similarity and expertise are less objectively evident to the buyer than salesperson resources. In other words, the buyer is much more aware of the product and service offerings a salesperson has than he/she is of perceptions of similarity, expertise or liking. The explanation also makes sense in terms of professionalism. Professional buyers should be more influenced by business performance related factors, the product offerings, than personal factors like similarity.

Third, the links between the internmediate sales goal variables and sales performance were uniformly significant and strong. Thus these intermediate factors are important and worthy of management consideration.

There are a number of implications for mangers in these results.

i) Adaptive selling is not an important managerial consideration.
ii) Salespersons can be more effective by using their adaptive skills to make the best use of the resources availible to them.
iii)The intermediate salesgoal variables are important to performance and thus it is worthwhile for the manager to expend resources in accessing them.

Role of Perceived similarity

Table II presents the results of a path analysis of the influence of perceived seller similarity on sales performance.

Table II:

Path Coefficients for Perceived Similarity

on Performance Influence and Intermediate Variables Trust and Liking

Inter. Var.	Path. Coeff. Direct Link Per. Simil. Sell. Perf.	Path Coeff. Per. Simil. Inter. Var.	Path Coeff. Inter. Var. Sell. Perf.	Indirect Path col. 2 x 3
Liking of Seller	0.04	0.94*	0.63	0.59
Trust	0.24	0.66*	0.58*	0.38

* = prob. < 0.01

The results show that in both cases perceived similarity has more influence on sales performance indirectly through liking or trust than directly. An explanation is that perceived similarity of the salesperson is important when the buyer can surmise an affective or cognitive result of similarity; "I like or trust the salesperson". Perceived similarity itself is not a large influence on sales performance. The buyer seems to need to draw a further inference from perceived similarity.

Another noteworthy result is the strong influence of similarity on liking and trust. The obvious managerial implication is that buyer-seller perceived similarity is managerially important because liking and trust are strongly related to performance. An interesting question not addressed here is what specific salesperson actions foster this perceived similarity.

Influence of Buyer-Seller Similarity in Physical Characteristics: Height and Weight

In Tables III and IV the influence of buyer-seller height and weight similarity on performance both directly and through liking and trust are presented.

Table III:

Path Coefficients for Buyer-Seller Height Similarity

on Performance and Intermediate Variables Liking and Trust

Inter. Var.	Path. Coeff. Direct Link Height Sell. Perf.	Path Coeff. Height Inter. Var.	Path Coeff. Inter. Var. Sell. Perf.	Indirect Path col. 2 x 3
Liking of Seller	0.18	0.33	0.61*	0.20
Trust	0.12	0.37	0.69*	0.26

* = prob. < 0.01

Table IV:

Path Coefficients for Buyer-Seller Weight Similarity

on Performance and Intermediate Variables Liking and Trust

Inter. Var.	Path. Coeff. Direct Link Weight Sell. Perf.	Path Coeff. Weight Inter. Var.	Path Coeff. Inter. Var. Sell. Perf.	Indirect Path col. 2 x 3
Liking of Seller	0.46*	0.43	0.47*	0.20
Trust	0.42*	0.42	0.56*	0.24

* = prob. < 0.01

Height Similarity. For buyer-seller height similarity the direct paths are neither large nor significant. The indirect paths are slightly more potent,

especially in the case of the trust intermediary variable. In other words buyer-seller height similarity is not that important except perhaps in contributing to buyer liking and trust.

Weight Siliarity. Table IV shows that in contrast to height, buyer-seller weight similarity is an important influence on performance in a direct fashion and less so in terms of indirect pathways through liking and trust. The differences in influence between height and weight are difficult to explain but may be of use to practicing managers; ie weight matching is more important than height matching.

SUMMARY AND CONCLUSIONS

The results of this initial research show that adaptive selling appears not to be a viable means of tapping such intermediate sales goals as perceived seller expertise and similarity, trust and liking. A possible exception is salesperson resources. Also, adaptive selling does not have a large direct influence on sales performance.

Perceived similarity is more influential on sales performance indirectly through intermediate variables such as liking or trust than directly. Because trust and liking are so closely linked to performance the perceived similarity concept has important managerial implications.

Finally, for some reason not understood, weight has a large direct influence on sales performance whereas height similarity does not. It remains to be seen whether further research with a larger sample will bear out these initial results.

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