COMMITMENT AND ITS CONSEQUENCES
IN THE AMERICAN AGENCY SYSTEM
OF SELLING INSURANCE

by

E. ANDERSON*
W. T. ROSS, Jr.**
and
B. WEITZ†

96/42/MKT

* Professor of Marketing at INSEAD, Boulevard de Constance, 77305 Fontainebleau Cedex, France.

** Assistant Professor at Temple University, USA.

† J.C. Penney Eminent Scholar Chair, The University of Florida, USA.

A working paper in the INSEAD Working Paper Series is intended as a means whereby a faculty researcher's thoughts and findings may be communicated to interested readers. The paper should be considered preliminary in nature and may require revision.

Printed at INSEAD, Fontainebleau, France.
COMMITMENT AND ITS CONSEQUENCES IN THE
AMERICAN AGENCY SYSTEM OF SELLING INSURANCE

June 1996

Erin Anderson*
William T. Ross, Jr.**
Barton Weitz***

* Professor, INSEAD
** Assistant Professor, Temple University
*** J.C. Penney Eminent Scholar Chair, The University of Florida

This research was supported by the Marketing Science Institute. The authors thank Hans Miller and Laureen Regan for valuable industry background and comment.
COMMITMENT AND ITS CONSEQUENCES IN THE AMERICAN AGENCY SYSTEM OF SELLING INSURANCE

Abstract

What is often called the American Agency system of selling insurance is an institutional arrangement in which independent agents represent multiple insurers and hold property rights by virtue of owning the rights to the expirations of the policies they sell. This system of selling has been heavily criticized for lack of performance and is losing market share in North America. This paper uses original data from matched pairs of insurers and their independent agents to examine whether it is possible to build committed relationships between insurers and agents, how such commitment could be built, and whether any benefits are realized in such relationships. It is shown that mutual commitment can be built by a process of signaling and reciprocity between insurer and agent, but that one-sided commitment is difficult to create. It addition, it is shown that commitment enhances performance outcomes for both insurers and their agents, whether or not either party is aware of its counterpart's true level of commitment to their relationship. Both parties report higher profits in committed relationships. Further, when commitment is present, insurers are able to capture larger shares of the agent's total business, which may reduce future loss ratios on insurance policies written today. These results are compared to related findings in other industries.
1. INTRODUCTION

The American Agency system of selling insurance, whereby independent agents represent multiple insurers and own the rights to the expirations of the policies they sell, has been criticized in the academic literature for two decades (Cummins and Weiss 1991, Blair and Herndon 1994). Regan (1996) reviews an empirical literature beginning with Joskow (1973) and Cummins and VanDerhei (1979) which concludes that independent agents take higher margins and that companies using independent agents incur higher expense ratios, which suggests that independent agents deliver product less efficiently than do salespeople which do not own the expirations. Why, then, do independent agents continue to survive, and in some lines, even thrive? An early answer, that agents offer buyers better service, does not withstand scrutiny (Cummins and Weisbart 1977, Doerpinghaus 1991, Barrese, Doerpinghaus, and Nelson 1995). A later and more satisfactory answer has been advanced and supported by Regan (1996) and Regan and Tennyson (1995). They observe that independent agents are better able to both assess and service applicant risk in more uncertain markets and in complex product lines. Therefore, insurers reduce transaction costs and can write more business, and more profitable business, by using independent agents under these circumstances. Regan (1996) concludes that the American Agency system is well suited to some environments, even though agents may appear to be a more costly way of going to market when costs are assessed merely by the examination of commissions. In short, Regan (1996) demonstrates than when all costs are accounted for, including transaction costs, there are important markets where the independent agency system will stay and even dominate.

This prediction runs counter to the widely-held viewpoint that today's independent agents face the doom of eventual extinction just as surely as did the dinosaurs. This view, first expressed
by Joskow (1973) and echoed in the concerns of agents studied by Cummins and Weisbart (1977), has been supported by the decline of agents in some product lines (Cummins and Weiss 1991, Blair and Herndon 1994). Yet, as Regan (1996) points out, the “dinosaurs” dominate other lines and appear likely to continue to do so. And indeed, in spite of widespread experimentation with selling insurance through means other than independent sales agents (including means not involving salespeople), the American Agency system is certainly alive and well (Berger, Cummins, and Weiss 1995). Given this reality, many insurers will not (indeed cannot) abandon the American Agency selling system. How, then, can insurers continue to work through independent agents, yet increase their selling efficiency and effectiveness?

Some elements of the insurance industry have experimented with forging committed relationships with agents as a means to stay with the independent agency system, yet achieve better results than the system usually delivers. Commitment-building is an effort by principals (here, insurers) to bind agents (here, independent insurance agents which own the rights to expirations) to them so tightly as to blur the distinction between the principal and the agent. At the limit, the relationship is so close that no party (insurer, agent, or policyholder) is entirely sure that the principal is not vertically integrated. This idea (that the principal can be technically using a market mechanism but enjoy most of the benefits of vertical integration) has attracted considerable attention. A very large literature spanning several fields (including multiple sub-disciplines of business) has developed that has collectively examined two questions: 1) do committed relationships really generate economic, as opposed to solely psychological, benefits and, if so, to whom; 2) how can a firm create a committed relationship?

This study examines both questions and does so in the context of the insurance industry in
the United States. The argument made here is that one way for insurers to blur the line between themselves and their agents is to cultivate commitment from their independent agents. On the surface, this idea might appear impractical. This study uses a large primary data set collected from pairs of insurers and their agents, each member of the pair supplying confidential information about itself, its counterpart, and their relationship. Using this dyadic data, it is demonstrated that it is possible to build extremely high levels of commitment. However, doing so is expensive, time consuming, and encumbering. Do committed players get anything for their commitment? This study demonstrates that committed agents and insurers report more profits. Further, committed insurers are able to command a substantially higher share of the committed agent's volume. It has been argued that this is a path to reducing future loss ratios suffered by the insurer. If so, commitment would appear to have a significant influence on future losses.

This paper is organized as follows. Section 2 discusses the literature on close relationships and builds from it a proposed framework delineating conditions under which agents and/or insurers will commit to each other. Effects of commitment on economic performance are also proposed. Section 3 details how a large primary dyadic data set was collected and presents the results of estimating a system of equations in four endogenous variables representing commitment in an insurer-independent agent dyad. Three performance models are also estimated. Section 4 discusses the results and their limitations and compares them to related research in the literature of close relationships. Insurance agents are demonstrated to be driven by the same general factors that influence many other kinds of agents (e.g., industrial distributors), as well as to be strongly influenced by concern about the insurer's commitment to the basic principle of selling its insurance via independent agents which own the expirations. Insurers are shown to be
very attentive to financial considerations. Both parties appear to derive benefit from their arrangement, although the insurer's benefit is more difficult to ascertain and is strongly tied to the vagaries of the future. Commitment is demonstrated to be costly, and many of the benefits difficult to observe, making it problematic to assess whether vertical quasi-integration is in general a profitable strategy for the insurance industry.

2. PROPOSED FRAMEWORK: DETERMINANTS OF COMMITTED RELATIONSHIPS IN THE AMERICAN AGENCY SYSTEM

2.1 The Durability of the American Agency System

As noted earlier, the American Agency system has suffered withering criticism for inefficiency beginning in the 1970's (Barrese and Nelson 1992). The expense-ratio evidence against the system is so strong that some authors have felt obliged to offer explanations for why the system continues to exist at all, and in particular, why it is still dominant in commercial lines, in spite of widespread deregulation of rates and other industry-wide changes which affect independent agents (Cummins and Weiss 1991). Several economic arguments have been advanced in defense of the system. Regan (1996) argues that agents are well placed to assess non-standard risks and that their right to expirations, combined with their diversity of suppliers, give agents both the ability and the incentive to undertake thorough risk analyses. Blair and Herndon (1994) offer a policyholder perspective: the independent firm searches among many providers to find the best policy for each customer, and their combination of one-stop shopping and independence from any single insurer appeals to many buyers. One might liken the role of the independent agent to that of the retailer in marketing theory. The agent breaks bulk, builds assortments, and offers economies of place and time to the consumer. A compatible argument is
presented by Mayers and Smith (1981) and supported in Kim, Mayers, and Smith (1992): the
independent agent is more tied to the policyholder than to the insurer, a feature which
policyholders purchasing high-service, high-price policies will favor. Grossman and Hart (1986)
argue that independent agency encourages the agent to work to deliver repeat business (persistent
customers). Marvel (1982) argues that, where the agent, rather than the insurer's advertising, is
the engine for gaining business, the company can justify an independent agency (in contrast,
where advertising is critical, the insurer may prefer exclusive dealing to prevent free-riding on its
advertising expenditures). Blair and Herndon (1994) note that independent agencies provide an
important function: they allow entry into the insurance business by providing channel-based
economies of scope and scale to make distribution available to small firms. (However, Cummins
(1977) demonstrates that economies of scale within individual independent insurance agencies are
not substantial.) Overall arguments with empirical support are provided by Regan (1996),
arguing that agents should, do, and will continue to dominate some lines of insurance, and Blair
and Herndon (1994), providing a weaker argument to the effect that agents are declining so
slowly that they will never go into eclipse for practical purposes.

Hence, the literature suggests that the American Agency system is here to stay. Given this
reality (and the reality that many firms do most of their business through this system and would
face insurmountable switching costs in moving to any other system), how can insurers and agents
achieve better performance? This is a topic of much discussion in the insurance industry. It has
been the subject of multiple studies commissioned by industry bodies, including agent associations
conscened about their decline in market share (Cummins and Weiss 1991). A prototypical study
(Future One 1985, page 1) concludes as follows.
Stronger agent-company relationships based on mutual trust and commitment are critical if we are to heighten the efficiency of our distribution system... While most would heartily endorse the need for a closer agent-company partnership, achieving this objective will be a major challenge for our industry... Agents will be more efficient if they represent fewer companies... Companies would clearly realize efficiencies if a larger proportion of their agency plant gave them a healthy volume of business in relation to the size and location of the particular agent... How do we create an environment where these desirable longer-term relationships can work?

This study offers an answer to this question using transaction cost economics and theory from the burgeoning literature on close relationships.

2.2 Growing Interest in Commitment

The close relationships called for above by an industry task force have attracted interest in a variety of fields (Powell 1992). For example, the world automotive industry is moving toward close relationships between suppliers of components and assemblies and the manufacturers of cars (Bensaou and Venkatraman 1995). In more prosaic industries, such as ball bearings and paint, close buyer-supplier relationships generate significant economic benefits to buyers (Noordewer, John, and Nevin 1990). These particular relationships occur upstream in the value-added chain. Considerable interest also exists in downstream relationships involving selling and distribution (Heide 1994). For example, Anderson and Narus (1990) and Anderson and Weitz (1992) study properties of close relationships between manufacturers and distributors of industrial hard goods.

Widespread interest in close relationships began gathering in the 1980's as global competition intensified, calling into question the feasibility of vertical integration and giving rise to a wave of downsizing and outsourcing. Simultaneously, the apparent closeness of relationships between Japanese organizations in the value-added chain attracted commentary. The initial assumption that these relationships are culture bound, hence irreproducible outside of Japan, has
given way to a widespread recognition that close relationships can be calibrated and created by the actions of both players (Nishiguchi and Anderson 1995).

The object of interest is an ongoing business relationship which is unusually close, well coordinated, and enduring. A variety of terms to describe this state have been coined in various literatures, including “strategic alliance,” “partnership,” “relational governance,” “vertical quasi-integration,” “hybrid governance,” and “committed relationships” (for a review, see Heide 1994). A relatively encompassing definition has been offered by Anderson and Weitz (1992), which label the construct “commitment” and define it as a desire to see a relationship continue indefinitely combined with a willingness to make short-term sacrifices (in both real and opportunity cost terms) to maintain the relationship and confidence in the stability of the relationship.

Theoretically, these issues are separable. Anderson and Weitz (1992) argue that commitment requires the presence of all of them. In this conception, commitment is not unlimited: it does not entail indefinite (long-term) sacrifice, hence is not synonymous with simple loyalty.

Very roughly, two streams have emerged to frame the issue. One stream is rooted in law and in sociology (MacNeil 1980) and centers on behavioral, often interpersonal, mechanisms. The central construct in this literature is trust (Gambetta 1988), which may be defined as a belief that the counterpart will behave “equitably” (in a manner which is “fair” or which respects the interests of the trusting party). Commitment and trust may be observed hand in hand. Trust theorists argue that trust precedes, thereby enables, commitment, leading to the custom in empirical work of specifying trust as an antecedent of closeness. Empirically, of course, it is impossible to ascertain, given the cross-sectional nature of data describing trust, whether trust precedes commitment or follows from it (or perhaps both occur in an escalation pattern). Since
trust is not readily observable, longitudinal data which bear on the issue are not readily available.

The second stream of research is rooted in institutional economics, in particular, the transaction cost approach (Williamson 1985). A central premise here is that opportunism (self-interest seeking with guile) is potentially everywhere. Hence, trust is dangerous and should not be given unless the counterpart has a clear self-interest in behaving in a trustworthy fashion. In other words, trust should be calculative and should be based upon the other party making a "credible commitment." A credible commitment is an investment made in the counterpart which would be lost should the relationship end. The credible commitment idea, rooted in the theory of self-enforcing contracts, goes under various labels, including "hostages" (Williamson 1983) and "pledges" (Anderson and Weitz 1992).

While acknowledging the potential usefulness of a trust-based approach, this paper focuses upon a more calculative, economic approach to the study of commitment in the distribution of insurance. We begin by examining what either agent or insurer might gain from commitment and build a proposed model of economic benefits derived from committed relationships. We then turn to an examination of how commitment could be constructed in the selling of insurance.

2.3 Performance Outcomes of Commitment

Force One (1985) concludes that both agents and insurer will benefit economically from closer relationships. The line of argument, familiar in the alliance literature, is that by enjoying preferred status and by coordinating efforts, each side achieves benefits. For the insurer, the benefits revolve around more vigorous representation in the field, including the benefits of agent sales efforts positioning the insurer as differentiated from other insurers. Cost savings are also
posed: for example, in closer relationships, agents might be more willing to engage in electronic
data interchange with insurers, thereby reducing paperwork and error (Zaheer and Venkatraman
1994). A particular advantage, unique to the insurance industry, may accrue if the insurer is able
to garner enough agent commitment to induce the agent to violate the principle of diversifying its
portfolio of business among suppliers (Anderson, Lodish, and Weitz 1987). If the agent allows its
revenue to become concentrated in one supplier, that supplier gains power over the agent, with
possibly deleterious consequences for the agent’s profits. In insurance, it is widely believed that
this practice is desirable to insurers. This is because it may discourage the practice of knowingly
assigning poor risks. The agent may assign poor risks to marginal suppliers in the agent’s
portfolio of underwriters (a form of opportunism known as deliberate adverse selection) in the
belief that 1) the insurer’s eventual displeasure when it incurs a high loss ratio is inconsequential
to the agent, and/or 2) the insurer will not have enough data from that agent to be sure the agent
is assigning it excessive risk anyway. These expectations disappear as the principal assumes a
large share of the agent’s volume. Further, moral hazard may be discouraged: agents may hesitate
to misrepresent claims to a high-share (for them) insurer. Hence, “owning the agent’s revenue”
may be a way to reduce future losses.¹

The issue is more complex from the agent’s standpoint. Why would an independent
insurance agent, which on average represents some six insurers (Cummins and Weiss 1991),

¹ This argument appears in industry publications, is debated at industry meetings, and is
accepted by some insurers, including those participating in this study. However, it is by no means
proven. Indeed, one may argue that an agent could "hide" high risk business in a larger portfolio,
counting on the losses to be offset by other business. Further, if the agent is motivated to achieve
a high volume (for example, by the existence of contingent commission schedules), and cannot do
so without accepting high-risk business, an insurer could conceivably increase the riskiness of the
business by driving the agent to devote a high share of its volume to a given insurer.
commit to any of them, particularly if one advantage of an independent agent is the ability to assure policyholders of the agent's concern for the buyer's interests? One explanation is that agents are facing an ever-shrinking pool of insurers. Cummins and Weiss (1991) point out that it is a myth in the property-casualty industry that there exists a vast number of companies, which enables competition to exist. In reality, there is an order-of-magnitude fewer companies than would appear to exist, and many of them sell only automobile insurance. In addition, because property-liability insurance exists in thousand of types grouped into dozens of categories (Blair and Herndon 1994), the number of insurers in a given segment and market may not be large (Cummins and Weiss 1991). Further, industry reports indicate that more than a few insurers are paring the number of agents they service and experimenting with alternative ways to sell insurance (exclusive agency, direct writing, or brokerage, not to mention selling via the mails, bank branches, and other alternative mechanisms).

In general, insurance markets are competitive, and agents' share of them is declining. This obliges agents to search for ways to differentiate themselves and to cut costs. Mazzuca (1989), in a prototypical editorial, discusses how agents can benefit from the rash of "preferred producer" programs launched, beginning in the 1980's, by insurers intent on cultivating commitment from selected agents. These programs generate controversy involving all parties. Insurers wonder if they are getting anything back for their efforts. Agents ask themselves the same questions and wonder if they are not being led down a path to a dangerous level of dependence. Regulators wonder if policyholders are paying higher prices due to the passing on of costs and the failure to incur benefits.

While not taking a position on these issues, Mazzuca (1989) summarizes ongoing agent
benefits from committing to selected insurers as coming down to more “responsive” underwriting and higher commissions, advantages which become particularly valuable in “hard markets” (shrinking availability of insurance). This corresponds to the classic distribution-channel advantages of product differentiation (which facilitates turnover) and higher margins, especially valuable in market downturns.

Certainly, commitment can become entrapment, thereby reducing a party’s economic performance. However, the bulk of the literature on commitment suggests that commitment, on average, enables firms to garner many of the benefits of vertical integration while sidestepping many of its costs (Heide 1994). A major reason lies implicit in the literature: one-sided commitment is rare. If so, the presence of two-sided commitment (to be discussed below) serves as a brake against exploitation of a committed party. In this regard, Ross, Anderson, and Weitz (1996) study commitment between independent agents and insurers and show that the mere perception of asymmetric commitment by either side damages the relationship, contributes to its eventual unraveling, and decreases reported profit derived from the relationship. This suggests that the parties are vigilant and do not easily allow entrapment to occur.

In the insurance context, we advance the following propositions:

1) Insurers report higher profits derived from a relationship the more they are committed to the agent and the more the agent is committed to them;
2) Independent insurance agents report higher profits derived from a relationship the more they are committed to an insurer and the more that insurer is committed to them.

In addition, we propose that an insurer’s share of an agent’s premium volume will increase the more the insurer is committed to the agent and the more the agent is committed to the insurer.

2.4 The Construction of Commitment
This paper proposes a model, fundamentally based on transaction cost analysis, of when commitment will occur between an independent insurance agent and an underwriter. A similar model has been proposed and tested by Anderson and Weitz (1992) in the context of industrial distribution (that is, commitment between manufacturers of products such as chemicals and the wholesalers which purchase, warehouse, resell, and ship these products to other businesses). In this model, commitment, while possessing an emotional component, is seen as fundamentally behavioral, that is as based on observations of one's own behavior and on observations of the other side's behavior, as well as expectations about the other side's commitment, attributes, and normal behavior. The model, summarized graphically in Figure 1, is based on two fundamental propositions.

1) **Reciprocity**: each side (insurer and agent) conditions its commitment to the other on its perception (correct or incorrect) of the other side's corresponding commitment. A party will reciprocate what it believe it faces: commitment will meet reciprocal commitment, while indifference will meet reciprocal indifference. This reciprocity is calculated and is a necessary and natural act of balancing exposure (Goulder 1960).

2) **Signaling**: each side (insurer and agent) forms its perception (correct or incorrect) of the other side's corresponding commitment based on what cues it can discern. Neither side can (completely) disguise its true level of commitment. Even unconsciously or unwilling, each side send signals of its true state of commitment. Therefore, each side's perception of the other's commitment is positively related to the other's true level of commitment.

Taken together, reciprocity and signalling produce the circle of commitment shown in Figure 1. Operationally, this is a system of simultaneous equations in four endogenous variables (own and perceived commitment for insurers and for agents). In addition to their simultaneity, each of these constructs is proposed to be influenced by other factors. In particular, one's own commitment is proposed to be related to the investments one has made in the relationship which are transaction-specific, that is, not readily transferable to another relationship. In the insurance
context, these are largely non-tangible and refer to relationship building, specialized learning, mingling identity with the other party in the policyholder’s mind, and harmonizing proprietary reporting systems. These are assets in that they help to generate value (sell insurance). They are specific to the relationship in that their salvage value is negligible in another relationship. Parties which have made these relationship-specific investments in the past now face exit barriers which motivate them to preserve and enhance the relationship.

To some extent, these investments are observable to the other side. It is proposed here that each side observes the other’s relationship-specific investments (with any degree of accuracy) and relates its estimates of relationship-specific investment to its estimate of the other party’s commitment. This reflects the ability of a pledge to serve as a signal.

The role of specific investments has been examined by Zaheer and Venkatraman (1995), which uses survey data from independent insurance agents reporting on their largest supplier (which is unnamed). Agents report the share of their volume derived from this supplier, which is then modeled directly, with no intermediary state variables (such as commitment). This share is shown to be positively related to the agent’s own insurer-specific investments, albeit unrelated to the agent’s perception of the insurer’s agent-specific investments. This pattern is replicated when a smaller set of agents which are electronically interfaced with their largest insurer (which already suggests a measure of commitment, as the interface is proprietary) is examined (Zaheer and Venkatraman 1994). In general, Zaheer and Venkatraman (1995) find few explanations of agent share. This leads them to call for dyadic research on the process underlying the agent’s awarding of share. Such research will be presented in section 3 of this paper.

A major issue in the functioning of principal-agent relationships is communication.
Effective communication is bilateral and demands investments of time and emotion (Mohr and Nevin 1990). Hence, it is properly viewed as an investment made in the relationship, one that incurs costs and does not occur easily nor automatically (Anderson and Weitz 1989). Firms which make this investment are giving themselves reasons to commit, as well as working out possible disputes and generating positive sentiments (Mohr and Nevin 1990). Hence, communication and commitment should be positively related. Further, to the extent that the counterpart perceives bilateral communication, it should factor this in as a positive signal of the other side’s commitment.

In a services industry such as insurance, the people are the product. This suggests that either side is more likely to commit to a counterpart when it holds the counterpart’s personnel in high esteem. Further, commitment is something of an act of faith. Institutional theory suggests that faith should be based on a reasonable assurance of the other party’s reliability. In this vein, the counterpart’s reputation for fair dealing is relevant. Insurers should commit more to agents they see as reputable in their dealings with other insurers. Similarly, agents should commit more to insurers they see as reputable in their dealings with other agents. This commitment should occur because one can count on reputation as offering some assurance. This assurance is credible because a reputation offers cues as to the counterpart’s usual behavior and because a reputation is an asset to be protected (Telser 1980).

Earlier, it was suggested that each party assesses the other’s commitment using cues about the relationship. An important cue is the history of conflict in the relationship. Insurance is a notoriously conflictual industry, and within it, insurers using independent agents often employ coercive tactics and sustain intense conflict with their agents (Cather and Howe 1989). While
some degree of conflict is normal, perhaps even functional (Anderson and Narus 1990), excessive or unusual conflict over time may leave a lasting impression that cannot be discounted. Hence, a history of intense conflict may make it impossible for a party to believe that the counterpart is indeed currently committed to the relationship.²

A particular feature of the insurance industry is the widespread attack upon (and decline of) the independent agency system, following decades of prosperity and stability for agents as a whole. Widely publicized experimentation with alternative ways to sell insurance has gathered much attention and comment, particularly in conventions and magazines dedicated to independent agents. This suggests that agents may factor into their assessment of the insurer’s commitment to them as a company their sense of the insurer’s commitment to the American Agency system of selling insurance. Insurers seen as committed to the system may be perceived as being more committed to a given agent, all else constant.

In summary, then, agent-insurer commitment is seen as based on signaling (not necessarily intentional) and reciprocity. Further, each side:

- is proposed to condition its own commitment upon its investments in relationship-specific investments and in bilateral communication;
- is proposed to estimate the other side’s investment in communication and relationship-specific investments and to attribute greater commitment where it sees higher investment;
- is proposed to give greater commitment to counterparts which it believes to possess a higher grade of personnel and a better reputation for fair dealing.

In addition, agents are proposed to discount the commitment of any insurer seen to be interested in selling insurance outside the American Agency system.

Several features of this model are noteworthy. First, it is all based on the actor’s

² Past conflict is the only path in Figure 1 that is hypothesized to be negative.
perceptions, rather than on what an observer would consider reality. This is because the object of concern is what each party intends to do, and this is a function of the world that each party believes it inhabits. Second, actors are believed to calculate when commitment is warranted. This should be contrasted with models in which commitment is believed to arise spontaneously as business is conducted, becoming “embedded” naturally in a relationship (Granovetter 1985). Third, the model focuses on investments, particularly investments which are difficult to redeploy. Of course, myriad other factors undoubtedly play a role. However, as a first approximation, the model may offer some value, which we examine empirically in section 3 below.

3. EMPIRICAL ANALYSIS

Figure 1 summarizes the proposed major determinants of commitment between insurers and their independent agents. These proposals are tested empirically using original data gathered directly and confidentially from 490 informants representing a sample of 245 pairs of insurers and agents doing business together. Each side supplied primary data on its relationship with the other side. The unit of analysis is the dyad of insurer and agent. Data from each side are pooled to form a complete picture of the relationship as seen by the principal and the agent. This is a highly unusual data set for the insurance industry, which typically relies upon publicly available information about observable states of nature in the industry at the level of an insurer or an agent. Where data are gathered directly to assess non-observable states of nature, they are typically collected from the agent only. In the insurance industry, detailed, confidential information about perceptions, intentions, and behavior collected from both parties reporting on each other appears to be nonexistent. The price to pay is that the effort and cooperation required to gain such data is massive and involves tradeoffs, which are detailed below.
3.1 Data Collection

A major full-line writer of insurance, with emphasis on property/casualty insurance and another major writer, with somewhat more emphasis on life insurance, participated in this study in return for a report presenting the results and describing, region by region, their agents and branch office in aggregate fashion.\(^3\) The larger firm had been experimenting for years with formal preferred producer programs, while the smaller firm had discovered that some of its agents appeared more enthusiastic about the insurer than others, although the company had not pursued any systematic loyalty-building programs. Based on literature review and field interviews with selected agents and personnel from the two insurance writers, a survey instrument was developed and pretested for simplicity, clarity, and practicality (easily doable in no more than 20 minutes). The insurers randomly selected a representative cross section of their agents\(^4\) (including some involved in preferred-producer programs at some point in time) and supplied mailing lists giving the name of the person in the agency who was most knowledgeable about the relationship with the insurer (as these are typically small firms, the person identified was usually the owner). The insurers also indicated the name and address of the most knowledgeable person in their own organization concerning the relationship with a named agent. This person was usually the agent’s direct liaison, i.e. the field sales manager for the insurer.

---

\(^3\) In all analyses to follow, these carriers were examined separately to determine their poolability; being poolable in all cases, they were then combined.

\(^4\) The insurers are a minor supplier for many agents, allowing the sampling of a full range of importance and commitment. In contrast, (Zaheer and Venkatraman 1994, 1995) sample only the agent’s largest relationship, which reduces the range of variation in relationships.
The researchers mailed to each matched pair a survey, coded to identify the respondent. The company informant received a questionnaire specifically about the (named) agent (not about the company's agents in general), while the agent informant received a survey about the insurer (named), (not about insurance companies in general). Both the agents and their company counterparts received a form letter from the insurer requesting cooperation and guaranteeing confidentiality. Included was a cover letter from the researchers explaining that the study was under University auspices, that all individual responses were confidential, that the identification code on the survey's face would be used solely to match the dyad members, and that the objective was to ascertain how agent-insurer relationships operated. Respondents were promised a generalized summary of the findings. One follow-up mailing was made a month later.

Response rates differed markedly across the two companies. The larger insurer supplied lists for 452 pairs that generated a 54% response rate among agents and a 71% rate among company personnel. Many of the responding agents wrote a small number of policies for this insurer but responded anyway. In contrast, the second insurer, a large but less well known firm, supplied lists for 151 pairs and enjoyed only a 35% response rate from agents and 55% from corresponding company personnel. Surprised, the insurer searched its information system internally and conducted telephone inquiries. This investigation revealed that the insurer's addresses and listings were often inaccurate. Further, many of the agents reached reported that they did not respond because they had not written a policy for the insurer in years (not surprisingly, their company counterparts failed to respond because they did not recognize the agent name on their survey). The insurer concluded that its information system needed
revision and that approximately two thirds of the names it had supplied represented correct
names and addresses of active agents. If so, the effective response rate approximates 53% for
agents and 82% for company personnel. Management indicated that a list of responding
agents provided by the researchers is a reasonable cross section of their active agents (those
that had written a policy within the last year).

Ultimately, there are 245 dyads (insurer and agent) for which both sides provided
complete measures on all variables in Figure 1. For purposes of measure development, the
sample size of each side (insurer underwriter and agent) is relevant and ranges up to 297
observations for agents and 368 observations for underwriters.

3.2 Measurement of the Variables

All variables in Figure 1 are measured using multi-item scales. A uniform procedure,
suggested by Nunnally (1978), is used to develop the scales: from a description of what the
construct includes, multiple items are generated. They are factor analyzed one construct at a time
to verify unidimensionality: all items load highly and with the correct sign on a first factor which
accounts for a high proportion of variance in the set of items, while remaining factors are trivial or
tangential. Then the items, all scaled to have the same polarity and unit of measure, are summed
to form a scale. The scale’s reliability is assessed via Cronbach’s alpha, which, in exploratory
field work, should meet a hurdle of .7.5

5 This procedure is standard practice in psychometrics and has found widespread
acceptance in other disciplines, such as strategy, marketing, and sociology. The underlying
principle is that a varied collection of "items," when pooled, presents a valid and reliable (stable)
measure of a "construct" because of the principle of cancelling out sources of error. Constructing
scales from items has been likened to building a bridge out of matches; no match is very strong,
but enough matches bundled together makes a powerful package. Psychometrics has long
Measurement Appendix 1 provides a complete description of each scale included in Figure 1. Table 1 overviews the measures, highlighting the appendix. Below is a brief description of each scale, most of which pass the .7 reliability benchmark. The effect of lower reliability is attenuated correlation, hence a greater likelihood of statistically nonsignificant findings (Nunnally 1978).

The measure of commitment is an eight-item scale proposed by Anderson and Weitz (1992). This measure taps attitudes and behaviors that reflect a willingness to make sacrifices for the relationship combined with a long time horizon. Each side also estimates the other side’s answers, providing an assessment of the counterpart’s commitment. Each side reports investments it has made in the other that it cannot readily remove from the relationship and redeploy, making them transaction-specific. These investments include learning, dedicated personnel, similar forms and procedures, business development, and alignment with the counterpart in the customer’s mind. Each side also estimates the other side’s transaction-specific investments. All other measures are straightforward representations of each side’s report of what is going on in the relationship (communication, a history of unusual conflict) and each side’s evaluation of the other’s reputed fairness and quality of personnel.

The measures for each side are almost uniformly parallel. Each side reports its perception of its own behavior, the behavior of its counterpart, and the state of their mutual relationship. Of course, each side (insurer and agent) lives in its own world, surrounded by its own environment and receiving information which can be quite different from what the other side sees, even in the

focused on such techniques due, perhaps, to the impracticality of collecting valid observable measures of psychological constructs.
same relationship. Hence, the two sides will disagree often, even when reporting on the same object (John and Reve 1982). Each entity is reporting the reality it experiences, but principal and agent do not live the same reality.

This is apparent in Table 2, the correlation matrix of all the measures. For example, insurers and agents each report on how much two-way communication they have with each other. Although they are reporting on the same phenomenon (communication) in the same relationship, their reports do not correlate perfectly. They correlate at the .32 level, which is statistically significantly different from zero but far from unity. Such lack of complete agreement is not unusual in dyadic data (for an illustration, see Anderson and Narus 1990).

3.2 Results: Determinants of Commitment

In Figure 1, all relationships are hypothesized to have a positive sign, excepting the relationships between a conflictual history and estimates of the counterpart’s commitment, which are expected to be negative. These relationships are cast as a system of simultaneous equations with four endogenous variables. The system is estimated using three-stage-least-squares regression using 245 complete observations. Table 3 reports the results: the columns (endogenous variables) follow the order of Figure 1 from left to right.

Beginning with the agent’s commitment to the insurer, an outcome of great interest to

---

6 This system is overidentified, as every exogenous variable is used in only one equation, with the exception of communications, which is hypothesized to drive both a party’s commitment and its estimate of the counterpart’s commitment.

7 Three-stage-least-squares regression is more efficient than two-stage-least-squares regression but is more sensitive to specification error. Two-stage-least-squares results are, however, substantially similar, suggesting the possibility of specification error given this set of variables is not driving the results presented in Table 3.
insurers, these results suggest that agents reciprocate what they believe (rightly or wrongly) to be the commitment of the principal. Principals whose commitment appears lukewarm elicit less agent commitment than do principals whose enthusiasm for the relationship is more apparent to the agent. Agents also condition their commitment on their assessment of the caliber of the insurer’s personnel: insurers with personnel who present a negative profile to the agent (hard to deal with, unresponsive, unhelpful, poorly trained, not understanding, inexperienced, not knowledgeable, poor communicators) pay a price in generating lower commitment from the agent. Agents also commit more strongly to insurers in those relationships in which both sides invest in communication. And agents feel more committed to relationships in which they have invested in an insurer-specific fashion. However, the agent’s sense of the insurer’s reputation for overall fairness to agents plays no apparent role. This non-result occurs in spite of the fact that, on average, agents do not attribute great fairness to their insurer counterparts (3.74 on a 7-point scale) and vary considerably in their assessments of reputed fairness (standard deviation of 1.48). It is possible that this result occurs because of the low reliability (Cronbach’s alpha of .58) associated with the company fairness scale.

Turning to the insurer’s side of the relationship, the insurer attempts to estimate the agent’s true commitment. In so doing, the insurer does appear to sense the agent’s true commitment and to incorporate that into its assessment. This effect is marginal but statistically significant at the .10 level (one tailed, in accord with the hypothesis). The insurer appears to condition its assessment of the agent’s commitment more heavily on its perception of what is going on in the relationship. An insurer perceives lower commitment from agents with which it
recalls an unusually acrimonious past. Conversely, where insurers perceive higher levels of two-way communication, they believe their agents to be more committed to them. Similarly, where they perceive agents making investments specific to the insurer, the insurer appears to treat this observed behavior as a positive signal and therefore to believe the agent to be more committed.  

Turning to the insurer's own commitment to the agent, the apparent determinants are strikingly few. Insurers reciprocate what they believe to be the agent's commitment. They also express more commitment to agents in which they have made higher levels of specific investment. No other factors appear to matter. Insurers appear to disregard two-way communication (although they do factor it into their estimate of the agent's commitment). They also disregard the agent's reputed fairness and even appear to ignore the quality of the agent's personnel. In a services industry, this latter non-result is curious. It becomes more curious below, when the performance models are estimated.  

Returning to the agent's side of the relationship, the agent appears to pick up and factor in the insurer's actual commitment in estimating that commitment: indeed, agents incorporate the other side's reality more strongly than do insurers, judging by the relative statistical significance of the effects. Beyond this, agents resemble insurers in conditioning their assessments on the same

---

8 Each side, of course, has its own sense of just how acrimonious the past has been: agent and insurer reports of the negativity of their history correlate .31, about the same level as their reports of communication. This lack of complete agreement is due not only to different encoding and recollection of events but to turnover in personnel on both sides of the dyad.  

9 Insurers appear to perceive these investments relatively accurately: their estimates and the agents' own reports of their own insurer-specific investments correlate at .60, which is rather high for dyadic data in general and this data set in particular. A possible explanation is provided by John and Reve (1982): the more concrete (the less subjective) and the more observable the event, the greater the degree of concordance between the sides of a dyad. Communication and conflict are inherently more perceptual events than, say, insurer-specific signage or training.
factors in the same way. Agents discount the other side’s commitment as a function of unusual conflict in the past. They upgrade their commitment estimates where they see insurers making investments specific to them and where they sense more bilateral communication. Further, agents condition their sense of the insurer’s commitment to them upon their sense of the insurer’s commitment to the principle of selling insurance through independent agents.

3.3 Results: The Relationship Between Commitment and Performance

The prior results demonstrate that commitment is difficult to achieve and requires the dedication of significant resources over time from both parties. An important question is whether in fact commitment actually improves the performance of either side. While performance is a rich construct and can never be fully captured (Lewin and Minton 1986), this research offers a partial assessment from two directions. First, does either side increase its profits, to the extent that either side can estimate what its profits are? Second, do insurers in committed relationships actually capture a higher share of their agent’s business? Share is important because of its expected (albeit currently unobservable) effect on the insurer’s future loss ratios.

What share of the agent’s revenue stream comes from the principal under study? Ideally, the agent would be asked to supply this information, as the agent is the best informed party. However, this was judged too sensitive a question to put to agents. Instead, agents were asked two less sensitive questions, namely the rank order of the insurer in the agency’s revenue stream and how many other insurers the agent represents. The insurer informant was asked to report the company’s revenue from the agent, a figure which is available to the insurer. The insurer also

10 These estimates are also relatively accurate, correlating .43 with the insurer’s reports of agent-specific investments.

24
estimated the agent’s overall sales revenue, a number which is confidential and which the insurer must approximate from such indicators as the apparent size of the agency’s facilities and payroll. From these reports, the researchers calculated the principal’s share of the agent’s business, then converted this measure to the logarithm of the odds ratio (insurer-derived revenue/all other agency revenue).\(^{11}\)

Is the insurer’s estimate of its share of the agent’s business accurate? One way to examine this issue is to correlate the logodds figure, supplied by the insurer, with the agent’s report of how many other insurers it represents. The two are strongly negatively correlated (\(-.53\) at \(p<.01\)): the more insurers an agent represents, the lower this insurer’s share of the agent’s business, all else constant. Further confidence in the insurer’s estimate is provided by Table 3, which reports the average share of agency business ordered by the agent’s report of where the insurer ranks in its volume.\(^{12}\) Table 4, based on 232 complete observations, shows that the company’s share of the agency’s business (estimated by the insurer) declines sharply and steadily as the agent reports the company declines in the rank it holds in the agent’s total volume. Hence, the insurer’s estimates of its share of the agent’s volume accord with confidential information supplied by the agency, suggesting the insurer has at least some level of accuracy in estimating its share of the agent’s revenue.

Measurement appendix 2 presents measures used to assess performance. Both sides

\(^{11}\) Modeling the log of the odds ratio circumvents the problems of logical consistency and heteroscedasticity which arise when modeling a share variable directly (Cooper and Nakanishi 1988).

\(^{12}\) Analysis of variance using the logodds representation indicates the differences by rank are statistically significant overall, while paired comparisons reveal that each cell is significantly different from all other cells.
report (non-numerically, as this information was judged too sensitive) the profit they derive from the counterpart and their expectation of future profit; not surprisingly, these are closely related, allowing the creation of a single scale. The intention here is to determine whether profitability and commitment are related. To do so requires covariates to control for some major extraneous sources of variation. Several covariates are presented as scales. Notably, to control for major sources of profit, each side reports on the inherent superiority of its counterpart relative to other firms doing business in the territory. Hence, agents estimate the extent to which this insurer is better managed and offers better products than do other insurers. Conversely, insurers estimate the extent to which this agent, relative to other agents in this territory, is better managed, offers better coverage, and fields a better sales force. Note that these are a priori advantages: they are not generated by either party's commitment to the other. Each party also estimates:

- the synergy it gains from the other;
- how many competitors their counterpart faces which sell products at least as good.

Synergy should improve profits while competition should depress them.

Finally, the agent (which experiences more personnel continuity than the insurer) is asked to report how long the two companies have done business together in the territory. Greater elapsed time may contribute to building share of the agent’s business.

Table 5 shows the correlation matrix of the performance measures. It is noteworthy that there is a strong positive correlation (.43) between each side’s independent estimate of the profits derived and expected from the relationship. Profit is not had at the expense of the other but along with the other.

Table 6 shows the agent’s profit, current and expected, as a function of commitment and
of relevant covariates. This model shows that agents report much higher profits from insurers to which they are committed. Further, they report higher profits from insurers which (whether or not the agent knows it) are committed to them. Finally, agent reports of profit derived from an insurer rise the better the insurer’s products fit with what else the agent sells. No other covariates appear to play a role, including the number of agents with which this agent competes, nor the reported superiority of this insurance company to others.

Table 7 shows the equivalent model for insurer profits derived from the agent. The picture is rather different. The insurer’s profit estimate is related to its own commitment but not to that of its agent. Synergy and the number of competitors are also unrelated. However, the inherent superiority of the agent (in management, sales force, and overall coverage) is strongly related to the insurer’s profits generated by that agent. While predictable, this finding (that agency superiority increases insurer profit) is somewhat surprising given the lack of relationship reported earlier between the quality of the agency’s personnel and the insurer’s commitment to the agent. A possible explanation is that the insurer’s estimates of the quality of the agency’s personnel and the superiority of the agency are positively correlated (.55) but are far from complete congruence. This suggests than an insurer may value the agency’s people per se, yet fault the agency’s management, coverage, and sales force. In short, good people take the agency only part of the way to good results in the insurer’s estimate.\(^\text{13}\)

It is striking that the agent’s actual commitment (which the insurer may not know) appears unrelated to the insurer’s estimate of its current and expected profit derived from that agent. For

\(^\text{13}\) As judged by agents, the connection between competent personnel and superiority in writing insurance is even weaker (.27).
insurers, however, the question of current (and certainly expected) profit is much more difficult to assess than it is for agents because of the difficulty of estimating future loss ratios from the business the agent writes today. Does agent commitment really have so little to do with insurer profit? To address this question, it is useful to examine the agency's share of its business derived from the insurer. To the extent that higher shares discourage adverse selection and moral hazard, these shares suggest future profitability for the insurer.

Table 8 presents these results. Included as a covariate is the length of time the parties have done business together, controlling for the possibility that share requires time to build. While this effect is not observed, insurers do report higher shares of the business of agents to which they are committed. They also report higher shares from agents which are committed to them—whether or not the insurer is aware of that commitment! Hence, agent commitment does appear to have a long-term profit payoff for insurers, whether or not they can estimate those effects today.  

4. CONCLUSIONS

These results are based on an unusual data set consisting of confidential primary information from principals and their agents in the insurance industry. The results are generally supportive of the framework proposed here. And in most ways, agents and insurers look alike. Each reads the other's actual (unknown) commitment with some accuracy, incorporating the other side's desire and willingness to support the relationship into an estimate of the counterpart's commitment. That estimate is primarily influenced by observations of the other side’s behavior.

---

14 Insurance informants do have some sense of this connection, judging by the correlation of .29 between the logodds measure and the insurer's estimate of current and expected profit.
and the relationship's history. Each side takes the other's specific investments to be a credible commitment. Each side is more optimistic about the other's commitment where there is bilateral communication and an absence of unusual prior conflict. Agents in particular put more faith in the commitment of insurers which appear committed to selling through the independent agency system.

In terms of one's own commitment levels, each side reciprocates what it believes to be the commitment of the other, and each side treats its own transaction-specific investments as a credible commitment, binding it to the relationship. The story stops there for insurers. Agents, however, are more complex. They offer more commitment to insurers whose personnel they esteem and with whom they enjoy bilateral communication.

It is interesting that neither side appears to factor the counterpart's reputation for fairness into account. Somewhat similar results were found by Anderson and Weitz (1992) in studying commitment in a very different setting: industrial distribution. Industrial suppliers disregarded the distributor's reputation for fair dealings with other suppliers, just as insurers appear to disregard the agent's reputation for fair dealings with other insurers. However, industrial distributors did appear to take in, albeit rather weakly, the supplier's fairness reputation. Insurance agents, at least those representing the insurers we studied, appeared to pay little attention to that reputation in calibrating their own commitment.

In general, the Anderson and Weitz (1992) industrial-hard-goods results are in accord with the findings presented here. Particularly noteworthy are the common findings that principals (industrial manufacturers or insurers) and agents (industrial distributors or independent insurance sales agencies):
- sense their counterpart's commitment;
- treat transaction-specific investments by their counterparts as credible signals of commitment;
- don't attribute commitment to old adversaries;
- reciprocate perceived commitment;
- treat their own transaction-specific investments as pledges;
- directly or indirectly increase overall commitment in the dyad by investing in bilateral communication;
- perceive what goes on in their relationship in a fashion which is congruent but not identical. There is much room for differences of perception and interpretation, which in turn creates much opportunity for conflict.

Clearly, building commitment is a slow, expensive task which encumbers each side significantly. Is it worth it? This paper cannot offer a definitive answer, as it cannot assess the costs of commitment building. But these results clearly indicate that there are benefits, substantial benefits, and that they accrue to both parties. This would seem equitable, as it appears that a high level of commitment must come from both parties if it is to come from either. Agents appear to benefit immediately and perceptibly from the fruits of the efforts generated by their own commitment and by the commitment of their provider of insurance policies. The picture is more obscure for insurers, but nonetheless positive. Insurers may not realize any immediate profit impact attributable directly to an agent's commitment to them. (They may realize an indirect effect to the extent that the agent's commitment acts to increase the insurer's own commitment, and insurers do appear to perceive higher profits when they themselves commit.) What is striking, however, is support for the claim that commitment on both sides allows the insurer to capture a substantially larger share of the agent's business. This improved position allows the insurer to discourage the agent from passing on poor risks (adverse selection) and misrepresenting claims (moral hazard).

This study does, of course, suffer from limitations. Notably, only two insurers are
represented. While both are large and well-known, and both exhibit great variety in the nature of their agent relationships, it is impossible to establish at this point how generalizable the results are to the insurance industry in general, as well as outside the U.S. setting of the research. Further, some of the measures employed here are proxies, and not all exhibit the usual minimal level of reliability. Finally, no model can incorporate all possible effects, and it is therefore possible that some non-measured effects, if included, might alter these results. We would hope that future research will explore and rectify the limitations in this exploratory study. Research addressing the implications of agency-insurer commitment for policyholders would also be valuable.

Taken together, these results suggest that vertical quasi-integration in insurance is indeed possible and does yield benefits—to both insurers and independent agents. Partnering in insurance need not be a myth, nor a zero-sum game. Hence, forging close relationships may represent a solution to the problem of high selling costs in the insurance industry without displacing the independent agency system.


Mazzuca, Laura (1989), "Are Preferred Producer Programs Rewarding or Discriminatory?," Business Insurance, 14 (March 6), 36A-36E.


FIGURE 1: HYPOTHESIZED MODEL OF COMMITMENT IN INSURANCE DYADS

LEGEND:
- Agent informant
- Insurer informant
<table>
<thead>
<tr>
<th>Construct</th>
<th>Agent # Items</th>
<th>Agent Coefficient</th>
<th>Insurer # Items</th>
<th>Insurer Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Representative Item (Agent wording)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commitment to the Relationship</td>
<td>8</td>
<td>.91</td>
<td>8</td>
<td>.94</td>
</tr>
<tr>
<td>Each Party's Estimate of Counterpart's Commitment</td>
<td>8</td>
<td>.92</td>
<td>8</td>
<td>.94</td>
</tr>
<tr>
<td>Transaction-Specific Investments made by Counterpart</td>
<td>7</td>
<td>.89</td>
<td>5</td>
<td>.88</td>
</tr>
<tr>
<td>Communication with Counterpart</td>
<td>5</td>
<td>.75</td>
<td>5</td>
<td>.90</td>
</tr>
<tr>
<td>Counterpart's Reputation for Fairness</td>
<td>2</td>
<td>.58</td>
<td>2</td>
<td>.71</td>
</tr>
<tr>
<td>Quality of Counterpart's Personnel</td>
<td>8</td>
<td>.86</td>
<td>8</td>
<td>.86</td>
</tr>
<tr>
<td>History of Intense Conflict with Counterpart</td>
<td>2</td>
<td>.70</td>
<td>2</td>
<td>.61</td>
</tr>
<tr>
<td>Each Side's Estimates of Transaction-Specific Investments made by the Counterpart</td>
<td>5</td>
<td>.80</td>
<td>5</td>
<td>.91</td>
</tr>
<tr>
<td>Agent's Belief that Insurer is Committed to Agency Sales System</td>
<td>2</td>
<td>.60</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td>AA</td>
<td>BA</td>
<td>CA</td>
<td>DA</td>
</tr>
<tr>
<td>-------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td><strong>AA</strong></td>
<td>5.23 (1.22)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>BA</strong></td>
<td>0.75</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CA</strong></td>
<td>0.42</td>
<td>4.73 (1.30)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>DA</strong></td>
<td>0.65</td>
<td>0.40</td>
<td></td>
<td>4.17 (1.44)</td>
</tr>
<tr>
<td><strong>EA</strong></td>
<td>0.34</td>
<td>0.43</td>
<td>0.01</td>
<td>0.30</td>
</tr>
<tr>
<td><strong>FA</strong></td>
<td>0.44</td>
<td>0.51</td>
<td>0.10</td>
<td>0.44</td>
</tr>
<tr>
<td><strong>GA</strong></td>
<td>-0.52</td>
<td>-0.52</td>
<td>-0.03</td>
<td>-0.39</td>
</tr>
<tr>
<td><strong>HA</strong></td>
<td>0.53</td>
<td>0.61</td>
<td>0.52</td>
<td>0.09</td>
</tr>
<tr>
<td><strong>IA</strong></td>
<td>0.38</td>
<td>0.47</td>
<td>0.27</td>
<td>0.35</td>
</tr>
<tr>
<td><strong>AI</strong></td>
<td>0.40</td>
<td>0.38</td>
<td>0.36</td>
<td>0.34</td>
</tr>
<tr>
<td><strong>BI</strong></td>
<td>0.50</td>
<td>0.48</td>
<td>0.37</td>
<td>0.39</td>
</tr>
<tr>
<td><strong>CI</strong></td>
<td>0.33</td>
<td>0.29</td>
<td>0.42</td>
<td>0.30</td>
</tr>
<tr>
<td><strong>DI</strong></td>
<td>0.35</td>
<td>0.34</td>
<td>0.39</td>
<td>0.31</td>
</tr>
<tr>
<td><strong>EI</strong></td>
<td>0.24</td>
<td>0.23</td>
<td>0.19</td>
<td>0.19</td>
</tr>
<tr>
<td><strong>FI</strong></td>
<td>0.28</td>
<td>0.26</td>
<td>0.05</td>
<td>0.13</td>
</tr>
<tr>
<td><strong>GI</strong></td>
<td>-0.34</td>
<td>-0.34</td>
<td>-0.19</td>
<td>-0.31</td>
</tr>
<tr>
<td><strong>HI</strong></td>
<td>0.47</td>
<td>0.47</td>
<td>0.59</td>
<td>0.40</td>
</tr>
</tbody>
</table>

- Diagonal entries: mean (standard deviation)
- All entries > .11; p ≤ .05
- All insurer reports italicized
- All agent reports non-italicized
- Variable labels correspond to measurement appendix

AA = COMMITAA = Agent’s commitment to the relationship
BA = COMMITAC = Agent’s estimate of insurer’s commitment
CA = IIAC = Transaction-specific investments made by agent
DA = WETALKAR = Agent’s perception of two-way communication with insurer
EA = FAIRAC = Agent’s perception that this insurer treats insurance agents fairly
FA = PEOPLEAC = Agent’s estimate of the quality of insurer’s personnel
GA = ROCKYAR = Agent’s report of unusual conflict in the past
HA = IIAC = Agent’s estimate of transaction-specific investments made by insurer
IA = AGENCYAC = Agent’s belief that insurer is committed to selling insurance via independent agents
AI = COMMITCC = Insurer’s commitment to the relationship
BI = COMMITCA = Insurer’s estimate of agent’s commitment
CI = IICC = Transaction-specific investments made by insurer
DI = WETALKCR = Insurer’s perception of two-way communication with agent
EI = FAIRCA = Insurer’s perception that this agent treats insurers fairly
FI = PEOPLECA = Insurer’s estimate of the quality of agent’s personnel
GI = ROCKYCR = Insurer’s report of unusual conflict in the past
HI = IIICA = Insurer’s estimate of transaction-specific investments made by agent
Table 3: Three-Stage-Least-Squares Estimates of Figure 1
Determinants of Commitment

<table>
<thead>
<tr>
<th></th>
<th>Agent’s Commitment (AA)</th>
<th>Insurer’s Perception of Agent’s Commitment (BI)</th>
<th>Insurer’s Commitment (AI)</th>
<th>Agent’s Estimate of Insurer’s Commitment (BA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>1.082 *** (.237)</td>
<td>2.647 *** (.397)</td>
<td>.064 (.257)</td>
<td>2.076 *** (.327)</td>
</tr>
<tr>
<td>Agent’s commitment to the relationship</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agent’s estimate of insurer’s commitment</td>
<td>.576 *** (.099)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transaction-specific investments made by agent</td>
<td>.066 ** (.040)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agent’s perception of two-way communication with insurer</td>
<td>.167 ** (.058)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agent’s perception that this insurer treats insurance agents fairly</td>
<td>.016 (.040)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agent’s estimate of the quality of insurer’s personnel</td>
<td>.087 * (.060)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agent’s report of unusual conflict in the past</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agent’s estimate of transaction-specific investments made by insurer</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agent’s belief that insurer is committed to selling insurance via independent agents</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insurer’s commitment to the relationship</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insurer’s estimate of agent’s commitment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transaction-specific investments made by insurer</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insurer’s perception of two-way communication with agent</td>
<td>.334 *** (.067)</td>
<td>.349 *** (.056)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insurer’s perception that this agent treats insurers fairly</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insurer’s estimate of quality of agent’s personnel</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insurer’s report of unusual conflict in the past</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insurer’s estimate of transaction-specific investments made by agent</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

All columns: coefficient (standard error)
System weighted R² = 69%
* p < .10
** p < .05
*** p < .01
All tests one-tailed, as per hypotheses
Italicized typeface: data from insurer Normal typeface: data from agent
Table 4

Insurer's Share of Agent's Revenue
Comparison of Insurer and Agent Information

<table>
<thead>
<tr>
<th>Insurer's Rank in Agency's Volume (Confidential Report of Agent)</th>
<th>First</th>
<th>Second</th>
<th>Third</th>
<th>Fourth or Lower</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insurer's Share of Agent's Volume (Confidential Report of Insurer)*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Log odds</td>
<td>.40</td>
<td>-1.49</td>
<td>-2.09</td>
<td>-2.64</td>
</tr>
<tr>
<td>Odds</td>
<td>1.49</td>
<td>.23</td>
<td>.12</td>
<td>.07</td>
</tr>
<tr>
<td>Insurer's Share of Agent's Volume</td>
<td>.60</td>
<td>.18</td>
<td>.11</td>
<td>.07</td>
</tr>
<tr>
<td># observations</td>
<td>116</td>
<td>42</td>
<td>26</td>
<td>48</td>
</tr>
</tbody>
</table>

* Insurer separately reports its volume from agent and its estimate of agent's total revenue.
Table 5

Correlation Matrix for Performance Measures

<table>
<thead>
<tr>
<th></th>
<th>1A</th>
<th>1I</th>
<th>2A</th>
<th>2I</th>
<th>3A</th>
<th>3I</th>
<th>4A</th>
<th>4I</th>
<th>5A</th>
<th>5I</th>
<th>6I</th>
<th>7A</th>
</tr>
</thead>
<tbody>
<tr>
<td>1A</td>
<td>4.74 (1.33)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1I</td>
<td>.43</td>
<td>4.65 (1.40)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2A</td>
<td>.75</td>
<td>.36</td>
<td>5.23 (1.22)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2I</td>
<td>.38</td>
<td>.79</td>
<td>.40</td>
<td>4.98 (1.31)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3A</td>
<td>.39</td>
<td>.10</td>
<td>.32</td>
<td>.10</td>
<td>3.86 (1.57)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3I</td>
<td>.18</td>
<td>.38</td>
<td>.21</td>
<td>.39</td>
<td>-.00</td>
<td>3.60 (1.51)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4A</td>
<td>.35</td>
<td>.23</td>
<td>.43</td>
<td>.27</td>
<td>.35</td>
<td>.05</td>
<td>4.15 ( .77)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4I</td>
<td>.13</td>
<td>.61</td>
<td>.11</td>
<td>.54</td>
<td>-.01</td>
<td>.47</td>
<td>.06</td>
<td>4.33 (1.27)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5A</td>
<td>-.15</td>
<td>-.04</td>
<td>-.17</td>
<td>-.05</td>
<td>-.17</td>
<td>-.07</td>
<td>-.16</td>
<td>.03</td>
<td>7.46 (13.03)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5I</td>
<td>.03</td>
<td>.00</td>
<td>.04</td>
<td>.02</td>
<td>-.05</td>
<td>.01</td>
<td>-.02</td>
<td>.08</td>
<td>2.38 (.81)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6I</td>
<td>.11</td>
<td>.29</td>
<td>.31</td>
<td>.47</td>
<td>.03</td>
<td>.02</td>
<td>.08</td>
<td>-.00</td>
<td>-.04</td>
<td>-.04</td>
<td>-.04</td>
<td>-1.01 (2.10)</td>
</tr>
<tr>
<td>7A</td>
<td>.03</td>
<td>.07</td>
<td>.09</td>
<td>.06</td>
<td>-.02</td>
<td>.04</td>
<td>-.04</td>
<td>.08</td>
<td>-.07</td>
<td>-.04</td>
<td>-.04</td>
<td>.05 20.44 (16.85)</td>
</tr>
</tbody>
</table>

Diagonal elements: mean (standard deviation)
All correlations > 1.13 are statistically significant at p ≤ .05

1A = Agent’s estimate of current and expected profit derived from this insurer
1I = Insurer’s estimate of current and expected profit derived from this agent
2A = Agent’s commitment to the insurer
2I = Insurer’s commitment to the agent
3A = Agent’s estimate of synergy of insurer’s lines with agent’s other lines
3I = Insurer’s estimate of synergy of agent’s other lines
4A = Agent’s report that this insurer is superior to other insurers
4I = Insurer’s report that this agent is superior to other agents
5A = Agent’s estimate of how many insurers in the territory have equivalent or better products than does this insurer
5I = Insurer’s estimate of how many agents in this agent’s territory carry lines competing with this insurer’s lines
6I = Log of the odds ratio: company share of agent’s revenue/(1 - company share). Company share and agent overall revenue separately estimated by insurer
7A = Agent’s report of how long the agent has represented the insurer

Italicized typeface: data from insurer Normal typeface: data from agent
Table 6
Agent’s Profit from Relationship

<table>
<thead>
<tr>
<th></th>
<th>Agent’s Current and Expected Profit from this Insurer</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Commitment</strong></td>
<td></td>
</tr>
<tr>
<td>Agent’s commitment to the insurer</td>
<td>.748 *** (.055)</td>
</tr>
<tr>
<td>Insurer’s commitment to the agent</td>
<td>.109 ** (.047)</td>
</tr>
<tr>
<td><strong>Synergy</strong></td>
<td></td>
</tr>
<tr>
<td>Agent’s estimate of synergy of insurer’s line with agent’s other lines</td>
<td>.139 *** (.038)</td>
</tr>
<tr>
<td><strong>Superiority</strong></td>
<td></td>
</tr>
<tr>
<td>Agent’s report that this insurer is superior to other insurers</td>
<td>-.004 (.078)</td>
</tr>
<tr>
<td><strong>Competition</strong></td>
<td></td>
</tr>
<tr>
<td>Insurer’s estimate of how many agents in this agent’s territory carry lines competing with this insurer’s lines</td>
<td>-.027 (.062)</td>
</tr>
<tr>
<td>Intercept</td>
<td>-.169 (.366)</td>
</tr>
</tbody>
</table>

Column: coefficient (standard error)
R² = 61%
F(5,243) = 76.03 ***
***  p ≤ .01
**   p ≤ .05
Italicized typeface: data from insurer
Normal typeface: data from agent
Table 7

Insurer's Profit from Relationship

<table>
<thead>
<tr>
<th>Commitment</th>
<th>Insurer's Current and Expected Profit from this Agent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agent's commitment to the insurer</td>
<td>.050 (.052)</td>
</tr>
<tr>
<td><strong>Insurer's commitment to the agent</strong></td>
<td>.701 ** (.058)</td>
</tr>
<tr>
<td>Synergy</td>
<td></td>
</tr>
<tr>
<td><strong>Insurer's estimate of synergy with agent's other lines</strong></td>
<td>.002 (.041)</td>
</tr>
<tr>
<td>Superiority</td>
<td></td>
</tr>
<tr>
<td><strong>Insurer's report that this agent is superior to other agents</strong></td>
<td>.285 ** (.054)</td>
</tr>
<tr>
<td>Competition</td>
<td></td>
</tr>
<tr>
<td>Agent's estimate of how many insurers have equivalent or better products competing with this insurer</td>
<td>- .001 (.004)</td>
</tr>
<tr>
<td>Intercept</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- .344 (.334)</td>
</tr>
</tbody>
</table>

Column: coefficient (standard error)

R² = .63
F(5,221) = 75.78 ***
*** p ≤ .01
** p ≤ .05

Italicized typeface: data from insurer
Normal typeface: data from agent
Table 8
Logodds Model

<table>
<thead>
<tr>
<th></th>
<th>Coefficient (Standard Error)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>-5.654*** (.668)</td>
</tr>
<tr>
<td>Agent’s commitment to the insurer</td>
<td>0.330** (.115)</td>
</tr>
<tr>
<td><strong>Insurer’s commitment to the agent</strong></td>
<td>0.571*** (.109)</td>
</tr>
<tr>
<td>Agent’s report of how long the agent has represented the insurer</td>
<td>0.005 (.007)</td>
</tr>
</tbody>
</table>

Column: coefficient (standard error)
R² = .21
F(3,225) = 19.54 ***
***  p ≤ .01
**   p ≤ .05
Italicized typeface: data from insurer
Normal typeface: data from agent

+ Insurer separately estimates the agent’s revenue from this insurer and the agent’s total revenue. Insurer’s share (constrained from .01 to .99) constructed from these estimates.
MEASUREMENT APPENDIX 1

Scales Corresponding to Figure 1

Notes: 1) unless noted otherwise, the response format of all scales is 1-7 (strongly disagree - strongly agree)
2) all items marked (R) were reversed in composing each scale
3) unless noted otherwise, each scale is presented as per the principal, i.e. insurance company. The insurance agent answered the same questions, substituting the insurer as the object of each item. Where the substitution is not exact, both scales are presented
4) Notation (AI, AA, and so forth) corresponds to Table 2.

COMMITMENT TO THE RELATIONSHIP (AA, AI)

- We defend this agent/producer when others criticize him.
- We have a strong sense of loyalty to this agent/producer.
- We are continually on the lookout for another agent/producer to replace this agent/producer. (R)
- We expect to be working with this agent/producer for some time.
- Our relationship with this agent/producer is a long-term alliance.
- We are willing to dedicate whatever people and resources it takes to grow sales for this agent/producer.
- Any concessions we make to help out this agent/producer will even out in the long run. We are quite willing to make sacrifices to help out this agent/producer from time to time.

Coefficient alpha: .94 (principal)
                 .91 (agent)

EACH PARTY'S ESTIMATE OF COUNTERPART'S COMMITMENT (BA, BI)

- This agent/producer defends us when others criticize us.
- This agent/producer has a strong sense of loyalty to us.
- This agent/producer is continually on the lookout for a company to replace us. (R)
- This agent/producer expects us to be working with them for a long time.
- This agent/producer sees our relationship as a long-term alliance.
- This agent/producer is willing to dedicate whatever people and resources it takes to grow our sales.
- This agent/producer feels that any concessions they make to help us will even out in the long run.
- This agent/producer is quite willing to make sacrifices to help us out from time to time.

Coefficient alpha: .94 (principal)
                 .92 (agent)
## Transaction-Specific Investments made by Counterpart (CA, CI)

### Agent (CA)

I have made a substantial investment in personnel dedicated to this company.*

I have gone out of my way to align myself with this company in the customer's mind.

If I switched to a competitive company, I would lose a lot of the investment I've made in this company.

I have invested a great deal in building up this company’s business.

If I decided to stop representing this company, I would be wasting a lot of knowledge that's tailored to their method of operation.

If I decided to stop selling this company’s products, I would have a lot of trouble redeploying those of my people who are presently serving this company.*

I have made a substantial investment in adopting forms and procedures that are similar to this company’s.*

### Insurer (CI)

We have made a substantial investment in personnel dedicated to this agent/producer.

We have gone out of our way to align ourselves with this agent/producer in the insured’s mind.

If we switched to a competing agent/producer, we would lose a lot of the investment we’ve made in this agent/producer.

We have invested a great deal in building up this agent’s/producer’s business.

If we decided to stop working with this agent/producer, we would be wasting a lot of knowledge regarding their method of operation.

### Coefficient alpha:

<table>
<thead>
<tr>
<th>Agent (CA)</th>
<th>.89</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insurer (CI)</td>
<td>.88</td>
</tr>
</tbody>
</table>

* Pretesting indicated that “I” is appropriate wording for agencies, which are usually small entities with which the informant (often the owner) identifies closely.

+ Pretesting indicated these items do not have a plausible counterpart for the insurer.
COMMUNICATION WITH COUNTERPART (DA, DI)

**Agent (DA)**
- Our agent/producer and this company make it a point to keep each other well informed.
- We hesitate to give this company too much information. (R)
- We are quite involved in the marketing and planning efforts of this company.
- This company seeks our advice and counsel concerning their marketing efforts.
- Our relationship with this company is like an open book.

**Insurer (DI)**
- Our company and this agent/producer make it a point to keep each other well informed.
- We hesitate to give this agent/producer too much information. (R)
- We are quite involved in the marketing and planning efforts of this agent/producer.
- This agent/producer seeks our advice and counsel concerning their marketing efforts.
- Our relationship with this agent/producer is like an open book.

Coefficient alpha: .75

COUNTERPART'S REPUTATION FOR FAIRNESS (EA, EI)

**Agent: Insurer Reputation**  
Among Agents (EA)
- This insurer has a reputation for fairness in dealing with agents.
- Some agents think this insurer only looks out for itself.

**Insurer: Agent Reputation**  
Among Insurers (EI)
- This agent/producer has a reputation for fairness in dealing with insurance companies.
- Some companies think this agent/producer only looks out for him or herself.

Coefficient alpha: .58
QUALITY OF COUNTERPART’S PERSONNEL (FA, FI)

- This agent/producer’s personnel are (circle the number which best fits the agent’s/producer’s personnel):

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Easy to deal with</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Hard to deal with (R)</td>
</tr>
<tr>
<td>Responsive</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Unresponsive (R)</td>
</tr>
<tr>
<td>Helpful</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Not helpful (R)</td>
</tr>
<tr>
<td>Not understanding</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Understanding</td>
</tr>
<tr>
<td>Not knowledgeable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Knowledgeable</td>
</tr>
<tr>
<td>Inexperienced</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Experienced</td>
</tr>
<tr>
<td>Good communicators</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Poor communicators (R)</td>
</tr>
<tr>
<td>Well trained</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Poorly trained (R)</td>
</tr>
</tbody>
</table>

Coefficient alpha:  .86 (principal)
                    .86 (agent)

HISTORY OF INTENSE CONFLICT WITH COUNTERPART (GA, GI)

- At one point, we came close to terminating our relationship with this agent/producer.

- We have had more then the usual amount of ups and downs in our dealings with this agent/producer.

Coefficient alpha:  .61 (principal)
                    .70 (agent)
EACH SIDE'S ESTIMATES OF TRANSACTION-SPECIFIC INVESTMENTS MADE BY THE COUNTERPART (HA, HI)

Agent estimating Insurer (HA)

- This company has gone out of its way to link me with their business.
- It would be difficult for this company to recoup its investment in me if they switched to another agent/producer in this territory.
- This company has made a substantial investment in personnel dedicated to my agency/producer.
- This company has invested a great deal in building up my business.
- If this company decides to stop working with me, they would be wasting a lot of knowledge regarding my method of operations.

Insurer Estimating Agent (HI)

- This agent/producer has gone out of his or her way to link us with their business.
- It would be difficult for this agent/producer to recoup his/her investment in us if they switched to another insurance company for our products.
- This agent/producer has made a substantial investment in personnel dedicated to our company.
- This agent/producer has invested a great deal in building up our products.
- If this agent/producer decided to stop representing us, they would be wasting a lot of knowledge tailored to our method of operation.

Coefficient alpha:  .80	 .91

AGENT'S BELIEF THAT INSURER IS COMMITTED TO AGENCY SALES SYSTEM (IA)

- This company is firmly committed to selling through independent agencies/producers.
- It is unlikely that this company will sell a significant amount of insurance and pension products through means other than independent agent/producers such as direct mail or telephone selling.

Coefficient alpha:  .60
MEASUREMENT APPENDIX 2

Performance Model Measures

CURRENT AND EXPECTED PROFIT
DERIVED FROM RELATIONSHIP WITH COUNTERPART (1A, 1I)

- This agent/producer is very profitable for our company.
- This agent/producer is likely to generate substantial benefits to our company over the next three years.
- In the foreseeable future, we would not be surprised if our relationship with this agent/producer proved less rewarding than it has been in the past. (R)

Coefficient alpha:  .83 (principal)
                  .79 (agent)

SYNERGY: SINGLE ITEM (3A, 3I)

Principal
- This agent’s/producer’s other product lines help generate sales of our products.

Agent
- This company’s products help generate sales of my other products.

SUPERIORITY RELATIVE TO ITS COMPETITORS (4A, 4I)

Principal
- Relative to other agent/producers in his or her territory, this agent/producer offers better territorial coverage.
- Relative to other agent/producers, this agent/producer has a better sales force.

This agent/producer in general is

<table>
<thead>
<tr>
<th>Well-managed</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>Not well-managed (R)</th>
</tr>
</thead>
</table>

Coefficient alpha:  .75

Agent
- Relative to other insurance companies, this company offers better products.
- Relative to other companies offering these products, this company has a better management

This company in general is

<table>
<thead>
<tr>
<th>Well-managed</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>Not well-managed</th>
</tr>
</thead>
</table>

Coefficient alpha:  .65