Strategic Alliance Sustainability:

Partner Cohesion and Customer Goal Achievement

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Abstract

A *strategic alliance* (SA) is a mutually beneficial long-term formal relationship formed between two or more parties to pursue a set of agreed upon goals to meet a critical business need while remaining independent organizations. It is a synergistic arrangement whereby two or more organizations agree to cooperate in the carrying out of a business activity where each brings different strengths and capabilities to the arrangement. The partner firms capitalize on efficiencies (bettering transaction costs), reduce the need for expertise or resources (reducing dependencies) and gain in the isomorphic way of doing business (mimetic following). A SA can be viewed as the "seller" of its products or services. The customer of a SA can be considered the "purchaser" of the alliance's products or services. It is hypothesized that the seller dyad could deem its activity successful if the relational cohesion between partners in the dyad is strong. It is also hypothesized that the customer of the SA has certain needs to satisfy to deem the goals of the alliance are achieved. Thus, there are two (2) independent variables to consider: 1) cohesion and 2) goal achievement. These independent variables will influence a hypothesized dependent variable, which is called "alliance renewal." The author hypothesizes that alliance renewal is dependent not only on 1) cohesion of the alliance partners, which has been written on before, but also on 2) goal achievement of the customer of the alliance. From this dual-axis, from low to high, dichotomous set-up the results fall into four quadrants of a matrix from the "most-likely sustainable alliance" to the "least-likely sustainable alliance," with the two other quadrants posing trade-offs between the cohesion and goal achievement (Appendix). Future research is discussed.

Keywords

Alliance cohesion, alliance renewal, customer goal achievement, strategic alliance, sustainability

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The construction industry was selected to illustrate the “cohesion-goal achievement-alliance renewal model.” The reason for choosing this industry is because it is the “design-build industry,” which is a relatively new organization that maintains information relative to the design-builder (strategic alliance **cohesion**) and the owner (customer **goal achievement**), who engages the design-builder. Founded in 1993, the Design-Build Institute of America (DBIA) is a not-for-profit membership organization, representing the design industry firms (alliance partner) and the construction industry firms (alliance partner), as they work together to implement an integrated project delivery approach to achieve project success, i.e., the goals of the owner (customer). In the construction industry, project success will be assessed using Cooke-Davies (2002) concept for project success (i.e., goal achievement), which measures time, cost, and meeting specification (triple constraint) – planned versus actual. These measures are consistent with the framework of project management (Gido, Clements & Baker 2018), which measures project success relative to successfully completing the project on-time (quantitative), on-budget (quantitative), meeting the specification set forth (quantitative and qualitative), and to the satisfaction of the customer (qualitative).

With greater transaction costs (Williamson 1985) and for other economic reasons (Contractor & Lorange 1988) associated with the traditional “design-bid-build” approach, all increase the desirability of the “design-build” strategic alliance entity. As well, the design-build alliance reduces the dependency of one firm on the other for their respective resources or expertise, as firms now team up (Barney 1991). Since the existence of the DBIA, design-build work has grown in size and project-type, as there is mimetic copying (DiMaggio and Powell

1983) that goes on when a means of doing business is deemed by others as successful and is copied in some way.

Research about the relationship between strategic alliance partners, relative to trust, culture, authority, governance and structure, and conflict (Das & Teng 1996, 2001; Oliver 1990) is known; however, these same issues when considered in the strategic alliance-customer relationship have not been researched or analyzed sufficiently, nor have examples of this relationship been applied to particular industries. And, up until this point, the aspects of 'game theory' have been only lightly considered (von Neumann & Morgenstern 1944; Parkhe 1993).

These issues are relevant and important, as well, to the strategic alliance-customer relationship for the obvious reason that it is a customer that is the reason for the formation of a strategic alliance for the provision of goods and services in the first place. Indeed, without this customer, no seller need exist. Other illustrations exist, for instance, in the healthcare industry, there are teams of service providers (networks and affiliations), formalized into strategic alliances (sellers) to service particular patients (customers) (McSweeney-Feld, Discenza, De Feis 2010). Thus, the validity of the construct is set, laying the groundwork for future research and empirical studies, whenever there is an alliance (seller) trying to satisfy a customer (buyer).

The likelihood of alliance renewal (dependent variable) or sustainability, relative to variable of the cohesiveness (or lack thereof) of the alliance partners (independent variable) and the variable of the goal achievement (or lack thereof) of the customer (independent variable) has not been adequately investigated. This investigation is absolutely important as it will shed light on the optimal situation for the strategic alliance (i.e., sustainability in the long run) versus the dismal situation of non-sustainability of the strategic alliance in the short run. An additional theoretical basis, beyond transaction cost economics, resource dependence theory, and institutional theory, on the formation of alliances will be offered. Also, this framework will suggest when there is sustainability in the short-run (but not the long run), and what is required for the alliance to proceed, and when the alliance should be abandoned.

Literature Review

The research of this paper delves into various aspects, including: (a) Reasons for a strategic alliance, (b) Rational partner behavior, and (c) Customer buying behavior.

a. Strategic Alliance

Strategic alliances are the result of the business world moving from competitiveness to cooperativeness, and based on *transaction cost economics* (Williamson 1979, 1985) where alliances allow organizations to take advantage of economies of scale and scope. Strategic alliances also embrace a *resource-based view* of the formation of strategic alliances (Eisenhardt & Schoonhoven 1996; Gulati 1995). In this view, strategic alliances are the manifestation of highly cooperative (and not competitive) strategies in organizations and enable the harnessing of the specific resources and skills of each organization in order to achieve greater common goals for the dyad or triad, as well as goals specific to the individual partners. In other words, strategic alliances espouse the "one plus one equals three" (1 + 1 = 3) (Varadarajan & Cunningham 1995) concept.

According to Das & Teng, "strategic alliances are interfirm cooperative arrangements aimed at achieving the strategic objectives of the partners" (Das & Teng, 1998, p. 491). Kanter (1994), who wrote a well-known article, "Collaborative Advantage: The Art of Alliances," focused on the importance (value) and current-day prevalence of alliances between companies. Strategic alliances have become "key corporate assets," yielding for the company pair (dyad) what she calls a *collaborative advantage*. To capture the gravity of the situation, note the similar syntax or parallel word structure of *collaborative advantage* to Adam Smith's *absolute advantage* (1776), David Ricardo's *comparative advantage* (1817) and Michael Porter's *competitive advantage* (1980).

The companies Kanter considered were very diverse, large and small, in the manufacturing and service sectors. Three findings were concluded: (a) alliances must yield benefits for partners; (b) alliances that both partners deem successful involve *collaboration*, not just *exchange*; (c) alliances cannot be controlled by formal systems (Kanter, 1994). Through many analogies about marriage between people, Kanter (1994) characterized the criteria for successful organizational relationships, including partner selection (i.e., self-analysis, chemistry, and compatibility), individual excellence, importance, interdependence, investment, information, integration, institutionalization, and integrity. However, relative to the benefits of alliances, and what is important to their success, especially awareness and sensitivity to political, cultural, organizational and human issues, there was a lack of focus in two main areas: (a) *risk* – how to handle the failure of an alliance, how to get out of an alliance (even if it is not failing), and what is at stake; and (b) *rational partner behavior*. For (a) *risk*, if they are to succeed, according to Kanter's criteria, there must be interdependence, information access/exchange, perhaps even full disclosure or at least some access to invaluable strategic information (e.g., plans, competitor information/ analyses, core competencies, etc.). If such information were to be obtained by competitors – of which the alliance partner may have been one in the past, or may be one in the future – and if loss of that information could potentially result in the demise of a company, how then could this risk be managed, so that the criteria important for a successful alliance is achieved, yet all is not lost if the alliance fails? Additionally, interdependence could result in one partner "losing" competitive advantages or internal competencies by sharing such information. For example, if a task was originally performed by both partners and is now assigned to one partner, the other partner may lose this capability or efficiency therein.

b. Rational Partner Behavior

The partners in business alliances will, ultimately, act rationally, i.e., in their own self-interest, and while each may want the alliance to succeed, it would be because of the benefits each expects to gain from the alliance, not because of any interest in their partner's success. That is, if partners were to rank the three entities involved in an alliance (i.e., themselves, their partners, and the partnership/alliance) in terms of importance or hope for success, then each partner would rank the list as: (first) their own success, (second) the success of the partnership, and (third) their partner's success. The latter, however, would not be for their partner's ultimate success, since that may be at their own expense, but for the benefits they would continue to reap if the alliance's success was sustained. Again, elements of the game theory phenomenon are present (von Neumann & Morgenstern 1944; Maynard Smith 1982). However, the customer, for whom the alliance works, has not been sufficiently addressed.

Das & Teng (1996-2004) and Ring & Van de Ven (1992) examine control, performance, risk, trust, and the governance and structuring of cooperative relationships between organizations, all considering the alliance partner-to-alliance partner relationship as the unit of analysis and consideration. The consideration of the *customer* – the one for whom the strategic alliance really exists – in the strategic alliance relationship has not been considered as a unit of analysis in the growing research and literature concerning strategic alliances. Strategic alliances do not exist for their own good per se; they exist for the reasons that all sellers exist: to provide goods and services to a willing buyer (customer). A strategic alliance does serve the mutual self-interest of the alliance partners in the way of complementary business lines, geography, and skills. However, as noted previously, there is no need for a strategic alliance, or any other seller, if there is not a willing buyer, or more broadly, consumer demand (Simonin 1999).

c. Customer Buying Behavior

Four factors influence customer buying behavior: *buyer characteristics*, *seller characteristics*, *product characteristics*, and *situational characteristics* (Kotler 1980, 2012; Howard & Sheth 1969). Accordingly, whether the seller is a single-firm or a dyad is an element of the seller's characteristics which will influence, positively, neutrally, or negatively, customer buying behavior. A strategic alliance is a special hybrid of the single-firm seller unit; it is a cooperative of two single-firm sellers that endeavors to operate as one single-firm seller, yet there are important differences and considerations.

Gulati (1995) explored how social structure affects inter-firm alliance formation patterns and proposes that the social context emerging from prior alliances and considerations of strategic interdependence influence partnership decisions between firms. The 'social network' facilitates new alliances by providing information relative to capabilities and reliability of potential partners. Comprehensive, longitudinal, multi-industry data were studied on strategic alliances formed between 1970 and 1989. Results are consistent with strategic interdependence and social structure, and the interaction between the two.

With all of this research on alliances themselves (i.e., partnerships, dyads, collaborative entities) and on buying behavior of the customer (Howard & Sheth 1969), there is still a void on the "alliance-customer" entity as the point of study. Thus, much is known about the alliance partner-to-alliance partner relationship, but much needs to be analyzed theoretically and empirically on the alliance-to-customer relationship.

Differences in the 'Single Firm – Customer' (SF-C) Relationship and the 'Strategic Alliance – Customer' (SA-C) Relationship

Various dimensions that are useful in considering/describing any relationship between two entities will be useful to consider, describe, and distinguish the single-firm – customer (SF-C) relationship from the strategic alliance – customer (SA-C) relationship. These dimensions are: (1) authority, (2) governance and structure, (3) conflict, (4) trust, and (5) culture. Thus, there might exist a relationship between the strategic alliance and customer (SA-C) that is transaction driven (Williamson 1979), where the dimensions to describe are authority and governance and structure, or one could have a SA-C relationship that is built on trust and culture (Doney, et al. 1998). Also, in the SA-C relationship scenario, potential problems arise which can be analyzed using a game theory approach (Parkhe 1993, von Neumann and Morgenstern 1944), while the SF-C relationship is much less complex and more straightforward in resolution.

Customer Goal Achievement (Project Success)

Assessing goal achievement by the customer is a vital way a customer seeks to continually increase their sustainable competitive advantage (Porter 1980). If the goals are in line with the objectives, and objectives are in line with the mission, and the mission is in line with the vision, a company is organized to achieve organizational goals and to motivate the organization well (Locke 1968, Locke and Latham 2002, p. 707-709, Bandura 1993, p.119-120).

The measurement of goal achievement could be done qualitatively and quantitatively. More often than not it is the quantitative methods that are used because of their black-and-white ease in making comparisons (De Feis 2007). Although much can be gained by considering a more well-rounded evaluation of the company than just quantitative measures, for example, the balanced scorecard (Kaplan and Norton 1992, 2010) is sort of a 360-degree analysis of organizational goal achievement, examining relationships with the customer, internal business processes, learning and growth, and financial, which is gaining repute. The reason for this is that numbers (quantitative) are exact and qualitative assessments are open to discussion, yet both assessments are vital (Kaplan and Duchon 1988). Note, though, however, in today's dynamic and overly complex business environment, regardless of the goal achievement measurement, it is difficult "to generate predictions about rapidly changing environments" (Eisner 2003, p. 44), and hence both quantitative and qualitative measurements have some merit.

Customer Goal Achievement

Researchers	Article Summary
Bandura (1993)	Diverse ways in which perceived self-efficacy contributes to cognitive development and functioning.
Cooke-Davies (2002)	New empirical research of 70 large organizations identifies twelve factors that are critical to project success.
Gido, Clements, Rose (2018)	New textbook of all project management concepts, including planning, performing, controlling, with PMBOK references.
Griffin and Page (1996)	No single measure of success in projects, e.g., customer satisfaction, financial. Develops measures to assess success.
House (1971)	Explains effects of leader behavior on subordinate satisfaction, motivation and performance.
Kaplan & Norton (1992, 2010)	Balanced scorecard rates performance on financial, customer, internal, and innovation and learning perspectives.
Locke (1968)	Summarizes/integrates research concerned the relationship between conscious goals and intentions and task performance.
Locke & Latham (2002)	Summarize 35 years of empirical research on goal-setting theory, including goals, goal effects, and goals & satisfaction.
Rahman (2007)	Differing goals and objectives of alliance partners can drive opportunistic behaviors leading to alliance disbandment.
Shenhar, Levy & Dvir (1997)	Proposed project success is divided into four time-dependent dimensions: when the project is executed to 3-5 years later.
Shenhar, et al. (2003)	Using many measures of success, 4 dimensions result: design goals, customer benefits, commercial success, future potential.
Simon (1964)	Description of organizational goals is very complex, yet the concept of goals can be introduced in an operational manner.
Weiner (1985)	Theory of motivation & emotion is proffered. Relates structure of thinking to dynamics of feeling & action in goal-setting.

Theories of goal achievement (Locke and Latham 2002; Weiner 1985), goal setting (House 1971), project success (Shenhar, et al., 2003) have been known for many years, and instruments have been developed to measure customer goal achievement (Griffin and Page 1996) which is, in effect, useful in determining how a customer who hires a strategic alliance could determine whether or not their goals were achieved. However, when analyzing the goal achievement of the customer in the design build industry, the most acceptable assessment, and one that is relatively easy to determine, comes from the actual completion date (versus contracted completion date) and the actual project cost (versus contractual project cost) (Gido, Clements & Rose, 2018). In a sense this exact, quantitative measurement determines whether or the customer (owner) achieve its goals. "Various measures have been offered to express the success of a project – most common among them are meeting schedule, budget, and performance goals" (Shenhar, Levy and Dvir, 1997, p. 5). However, "the traditional dimension – meeting time, budget and performance goals – is not really one homogenous dimension" (Shenhar, at al., p. 9), and hence each element will be looked at heterogeneously through different hypotheses. This decision is further corroborated by calculating the correlation of projects completed on-time with projects completed on-budget in the methodology section.

H1: Strategic alliances that perform work on-time for customers are more likely to renew.

H2: Strategic alliances that perform work on-budget for customers are more likely to renew.

H3: Strategic alliances that perform work to the satisfaction of the customers are more likely to renew.

Alliance Partner Cohesiveness (Relational Cohesion)

All aspects of mutual authority, governance and structure, conflict, trust, and culture (Das & Teng 1998, 2001, 2004) speak to alliance orientation (Kandemir, Yaprak & Cavusgil 2006), and relate to partner cohesion, and ultimately alliance outcomes (Saxton 1997) or alliance performance (Zollo, Reuer & Singh 2002). Alliance partners are cohesive when they work together, on the same goal, with the same expectations (e.g., rewards), with similar outlooks and time frames (e.g., temporal attitudes) on their work, and also are of a complementary culture. When organizations are cohesive they perform better than those that are not cohesive (Todeva & Knoke 2005, Das & Teng 2000). What brings on cohesion? If there is organizational trust, prior relationships, similar cultures, similar goals, similar work ethics, similar beliefs, etc., cohesion exists between firms. Without these attributes, cohesion is less strong.

From the research article of Fombrun and Shanley (1990), "(T)to overcome the limitations of analyzing separate dimensions of reputation, we created an index of overall reputation from eight single dimensions (Cronbach's $\alpha = 0.97$). A varimax factor analysis of the eight attributes extracted a single factor with an eigenvalue of 6.68 that accounted for 84 percent of the variance. Factor analyses of other surveys conducted by Fombrun in the last quarters of 1982, 1983, 1984, and 1986 supported the stability of this factor solution and justified our conclusion that the eight attributes elicited from the respondents were components of an underlying and stable construct of reputation" (p. 245).

Saxton (1997) furthered the research through the development of an instrument to measure partner alliance outcomes, which include measures of reputation (Fombrun and

Shanley, α = 0.97), prior relationship (Saxton, α = 0.43), similarity (Saxton, α = 0.72 to 0.82), and performance (α = 0.87), which, as well, could be used to measure relative cohesiveness of partner firms.

Hence, the construct *alliance outcomes*, with construct components having alphas measuring from 0.72 to 0.97 (without the alpha for prior relationship) are indeed measuring alliance outcomes. It must be noted, however, that alliances with good reputations, prior relationships with each other, similarity, and relative performance, do not always succeed, as noted by Greve (2010), et al.: "alliance break-ups and member withdrawal are also common, running as high as 50 percent in some industries" (p. 302). However, although "(F)findings suggest that although initial satisfaction may be explained by relationship characteristics, including a prior relationship with a partner and similarities between partners, a combination of partner and relationship characteristics offers the stronger explanation of sustained alliance success" (Saxton 1997: p. 457). Since alliance renewal, or "sustained alliance success," is being measured, the use of this instrument is valid and reliable.

Partner/Alliance Cohesiveness

Researchers	Article Summary
Das & Teng (1996 – 2004)	Much research on all aspects of strategic alliances, including: alliance sustainability, risk, instability, control.
Das & Teng (1998)	Analysis of trust and control; confidence in partner cooperation alliances.
Das & Teng (2000)	A resource-based theory of strategic alliances; internal tensions and instabilities in strategic alliances.
Kandemir, Yaprak & Cavusgil (2006)	Evidence that firms' alliance orientations affect performance in strengthening alliance network and in managing conflicts.
Kanter (1994)	Companies **with** strategic partnerships (alliances) effectively have a key corporate asset labeled: collaborative advantage.

Lawler & Yoon (1993, 1996)	Empirical studies on power and commitment behavior and commitment exchanges. Tests theory of relational cohesion.
Rahman (2007)	Differing goals and objectives of alliance partners can drive opportunistic behaviors leading to alliance disbandment.
Rahman & Korn (2010)	Beyond transaction cost reasoning; incorporates social exchanges to capture essence of alliance type/experience.
Ring & Van de Ven (1992)	Analysis implies emergence of relational contracts is dynamic; levels of risk & reliance on trust will change.
Saxton (1997)	Theories of alliance behavior and outcomes emphasize either partner/relationship characteristics; empirical study.
Thye, Yoon & Lawler (2002)	Drawing from the sociology of emotion and modern theories of social identity, a theory of relational cohesion is proffered.
Todeva & Knoke (2005)	SA propagated as formal interorganizational relationships are new forms achieving objectives through collaboration.

On the one hand, the theory of organization espouses that "any concrete organizational system is an economy; it is an adaptive social structure" (Selznick 1948: 25-26). So, a strategic alliance is an economy, of sorts, for otherwise the "invisible hand" (Smith 1759) would dictate that the single firm would prevail in business. But it is also an adaptive social structure, altering its shape and form, for a time, as when the alliance ends, the organizations re-structure, and, in effect, better their economies. Hence, the theory of relational cohesion (Lawler & Yoon 1993, 1996; Thye, Yoon, & Lawler 2002) is embedded in the strategic alliance realm, and thus it is hypothesized that this variable alliance outcome or orientation (or cohesiveness) moderates the goal achievement of the customer. So, this variable also, though, directly influences the likelihood of alliance renewal, and hence alliance outcomes go beyond "transaction cost reasoning and incorporates social exchange" perspectives (Rahman and Korn, 2010). In other words, interactive processes and performance by separate entities play a role in whether or not an alliance will renew. Harrison, Price & Bell (1998) have shown that cohesive teams working together on the same goals, with the same attitudes, and same mindsets work better because "homogenous groups interacted and performed more effectively than heterogeneous groups" (p. 104), and thus more likely to renew.

H4: Strategic alliance partners that are cohesive are more likely to renew.

Alliance Renewal/Alliance Sustainability

The term sustainability has been used many times before: sustainable competitive advantage (Porter 1980), sustainable development (Gladwin 1995, WCED 1987, De Feis 1994), alliance sustainability (Day 1995). Alliance sustainability could be defined as an alliance that meets the needs of the present (current goals) without affecting the alliance from meeting future needs (future goals). Hence, the theory of corporate sustainability (Dyllick & Hockerts 2002) is the result. Regarding alliance sustainability, one can simply see if an alliance is sustainable or not sustainable, based upon the repeat "alliances" the alliance partners have with each other. Either they repeat in the alliance context, hence they are sustainable, or they do not repeat to form alliances with each other, and, hence, they are not sustainable.

However, the "dissolution of SAs does not necessarily mean failure, just as the survival or longevity do not necessarily reflect success" (Park & Cho 1997, p. 156). But the strategic alliance orientation does effect the performance of the allied firms (Kandemir, Yaprak & Cavusgil 2006), and, hence, it is appropriate to view the likelihood of alliance renewal based upon the goal achievement of the customer, moderated by the alliance outcome (or orientation or cohesiveness).

Alliance Renewal/Sustainability

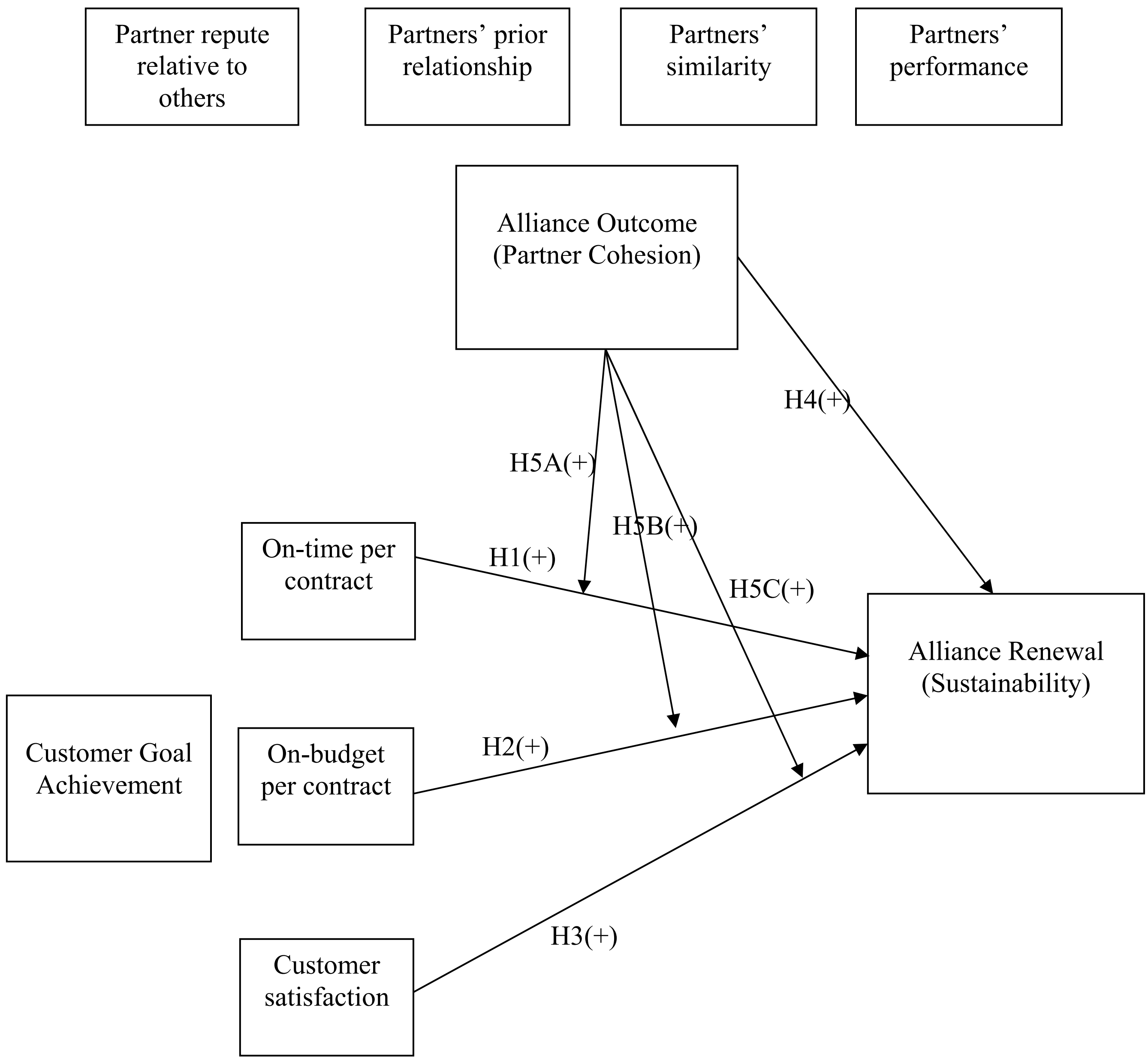
Researchers	Article Summary
Das & Teng (1998)	Analysis of trust and control; confidence in partner cooperation alliances leads to alliance sustainability.
Das & Teng (1997)	Options and guidelines are offered to sustain strategic alliances.
Day (1995)	SA are complex organizational relationships that sustain if they have mutual value, commitment, barriers to imitation.

Delios, Inkpen & Ross (2004)	Escalation of commitment (high termination costs, high sunk costs) leads to alliance sustainability.
Dyllick & Hockerts (2002)	Corporate sustainability vis-à-vis 'sustainable development' is the mantra for the 21st Century.
Kale, Dyer & Singh (2002)	Factors influence SA success: 1) stock gains after announced and 2) assessments of long-term performance.
Kandemir, Yaprak & Cavusgil (2006)	Evidence that firms' alliance orientations strengthen the alliance network and help manage conflicts.
McSweeney-Feld, Discenza & De Feis (2010)	Theoretical paper proposing SA sustainability based upon 'alliance partner cohesion' & 'customer goal achievement.'
Park & Cho (1997)	Investigates code-sharing alliances to assess market share increases of 56 airlines over the 1986-1993 period.

Many theories explain the reasons why alliances form and have been mentioned herein: transaction cost economics (Williamson 1979, 1985; Parkhe 1993; Coase 1937), institutional theory (DiMaggio and Powell 1983), and resource dependence theory (Das and Teng 2000, Gulati 1998, Barney 1991, Pfeffer and Nowak 1976), but this author argues that one must consider for whom the alliance works (i.e., customer) to gain a better understating of why alliances form and their consequent outcomes, which gives a new perspective to alliance formation. Transaction cost theory will state that alliances form to reduce the cost of the transaction of doing business, and hence they are efficient and profit maximizing. Institutional theory will state that alliances form out of some isomorphic process, largely mimetic. Resource dependence theory will state that alliances form to reduce the dependence a firm has on resources, which they then gain out of the alliance. This author argues that it is more than those three (3) theories suggest, because they have not considered for whom the alliance works, as without a customer there is no business.

The customer must achieve its goals to aid in the continuation of alliance renewal. Reachable goals must be set, i.e., goal setting, for example, the "objective (the ultimate aim of an action or series of actions), deadline (a time limit for completing a task), and budget (a spending goal or limit)" (Locke, Shaw, et al. 1981) must be set and communicated for theories of motivation and cognitive behavior modification to prevail (Meichenbaum 1977). Also, goal setting and the goal-setting framework are important parts of social learning theory (Locke & Latham 2002, Bandura 1977, Locke 1977). Hence, the following model (Figure 1) is proffered.

Figure 1: Alliance Renewal based upon alliance outcome (cohesion) and the goal achievement of the customer



Control Variables

- Owner (customer) – public, private, not-for-profit,
- Lifespan of the alliance partners,
- Renewal history of the alliance partners.

Moderating Variables

Because some alliances between firms may have repeated from prior alliances with the same firms, "prior knowledge permits the effective utilization of new knowledge" (Cohen & Levinthal 1990), and "knowledge facilitates the use of other knowledge" (Powell, et al, 1996, p. 120), there could be moderating effects (Baron & Kenny 1986) of alliance partner cohesiveness on the goal achievement of the customer; that is, alliance outcome could also affect goal achievement of the customer, which leads to three (3) additional hypotheses.

H5A: Strategic alliance partners that perform work on-time for the customer and who are cohesive in the alliance are more likely to renew.

H5B: Strategic alliances partners that perform work on-budget for the customer and who are cohesive in the alliance are more likely to renew.

H5C: Strategic alliance partners that perform work to the satisfaction of the customer and who are cohesive in the alliance are more likely to renew.

When there is a lack of cohesion between the partners in a strategic alliance, or the opportunistic opportunity for one partner to gain, at the expense of the other partner, then the alliance could ultimately fail (Park & Ungson 2001). This situation could be due to some problem with some or all of the following: trust, culture, authority, governance or structure, or conflict, even though the alliance is meeting the needs of the customer, i.e., achieving its goals (Simon 1964). When the alliance is not cohesive (for reasons stated earlier), and not fulfilling the goals of the customer, the alliance is not sustainable (Delios, Inkpen & Ross 2004; Das & Teng 1998), even in the short run. Here the alliance-customer relationship is at its "weakest."

Control Variables

A number of various control variables will be used to assess whether there are changes in alliance renewal, depending if the owner (customer) was public, private, or not-for-profit, lifespan of the alliance partners, and renewal history of the alliance partners.

Although many organizations have experience with alliances (Hitt, Dacin, at al. 2000; Rothaermel & Deeds 2006), there are the unknown positives and negatives (pros and cons) for both the alliance partners and the customer in engaging an entity that is a strategic alliance and not to a single-firm seller. What are the customer's perceptions of, and what would its interest be, in engaging a strategic alliance? Certainly, some benefits that accrue to the alliance partners (complementary skills, capital investment capability, increased operational efficiency, etc.) could also benefit the customer. Strategic alliances, however, also pose some negative issues as well. Do intra-industry alliances tend to reduce competition, and therefore result in oligopolistic behavior by the alliances? What would be the impact on the customers within that industry? From the customer's standpoint, much research in this area needs to be undertaken, as there is much to be gained in examining the goal achievement of the customer and cohesiveness of the alliance partners simultaneously. "A review on alliance performance suggests that it comprises two elements: goal accomplishment and relational harmony" (Rahman 2007, p. 21). Not only will the benefit of alliance formation be due to the "positive cohesiveness" or "networks of learning" (Eisner, Rahman, Korn, 2009: Powell, p. 116), but also on the achievements of the customer (McSweeney-Feld, Discenza, De Feis 2010).

Methodology

Population and Sample

While there is a larger population from which to choose, a convenience sample will come from a full-set of the strategic alliance entities which performed work for the customers of over three hundred (300) design-build projects, which have been catalogued by the Design-Build Institute of America, founded in 1996, as a result of the design-build entity completing a DBIA Project Database Form. Hence there is the possibility of self-selection bias, which arises when individuals select themselves into a group from which one is sampling (Ziliak and McCloskey 2008). However, since all the design-build entities are "competing" for a respected commendation, they will all present themselves in the best light, and since the likelihood of alliance renewal is being assessed, all deem their alliance to be the most sustainable. Thus, this self-selection bias will be mitigated.

Descriptive statistics was used to analyze the collection of quantitative data. Inferences to other firms in this same industry will be made, and while no inferences will be drawn to the larger population of alliances, other industries, or other customers. However, future direction and research into the strategic alliance entity cohesiveness and its customer's goal achievement will be clearly stated, for all alliances work, in a sense, for a customer (Doney and Cannon 1997) or owner.

Results

Summary of Hypotheses

Hypothesis 1 stated that strategic alliances that perform work on-time for customers are more likely to renew. This hypothesis was partially supported. There was a significantly higher rate of alliance renewal following projects that started on time. However, completing the project on time was not associated significantly with alliance renewal.

Hypothesis 2 stated that strategic alliances that perform work on-budget for customers are more likely to renew. The results of the logistic regression analyses did not support this hypothesis. No significant relationship was found between finishing within budget and alliance renewal.

Hypothesis 3 stated that strategic alliances that perform work to the satisfaction of the customers are more likely to renew. This hypothesis was supported by the results of the logistic regression analysis. Customer satisfaction was related significantly with a higher likelihood of alliance renewal.

Hypothesis 4 stated that strategic alliance partners that are cohesive are more likely to renew. The results of the logistic regression analyses did not support this hypothesis. No significant relationship was found between cohesion and alliance renewal.

The remaining three (3) hypotheses suggested that the effects of goal attainment would be greater in cohesive partnerships. Hypothesis 5A stated that strategic alliance partners that perform work on-time for the customer and who are cohesive in the alliance are more likely to renew. Similarly, Hypothesis 5B stated that strategic alliance partners that perform work on-budget for the customer and who are cohesive in the alliance are more likely to renew. Hypothesis 5C stated that strategic alliance partners that perform work to the satisfaction of the customer and who are cohesive in the alliance are more likely to renew. However, since almost all of the cases finished their work on time, it was not possible to conduct a meaningful test of whether the combination of timely completion and cohesion increased alliance renewal. The two-way interactions of overall Goal Attainment by Cohesion, Budget by Cohesion, and

Customer Satisfaction by Cohesion were not statistically significant. Cumulatively, these findings suggest that the quality of work is a critical driver of the decision to renew an alliance.

See Appendix for *"Strategic Alliance Renewal (Sustainability) as Related to Alliance Partner Outcome (Cohesion) and Customer Goal Achievement* (©De Feis 2011)," which will be essential for future research about the customer goal achievement of the alliance entity cohesion.

Discussion and Conclusion

Hypothesis 1 stated that "strategic alliances that perform work on-time for customers are more likely to renew." The term "on-time" had ambiguity in that one could consider the "starting on-time" or the "ending on-time" or those whose "contractual duration" from "start to end" could be considered versus "actual duration" from "start to end." However, it should be noted that those that started on-time had a greater likelihood of alliance renewal. (This "starting on-time" versus "ending on-time" conundrum was brought to light when the author was touring the old Soviet Union in 1989. On a tour of Leningrad, the author was shown many buildings which were "partially-built." When the local engineers were asked, "Why were there so many partially-built buildings?" they answered that in the Soviet Union there was much incentive, and hence motivation to "start" projects on-time, but there was little incentive to finish them.)

Hypothesis 2 stated that "strategic alliances that perform work on-budget for customers are more likely to renew." No significant relationship between on-budget performance and alliance renewal was found. The fact that all projects are managed closely through project management techniques (Gido, Clements & Rose, 2018) should indicate that changes to the actual budget, which are mutually-agreed upon between the customer (owner) and strategic alliance (design-build firm) could be a reason for no significant relationship, i.e., all projects are performed "on-budget." As there are mutually agreed upon budget changes, throughout the life of the project, performing work "on-budget" or "over, but approved (or not approved), budget" could not be distinguished.

Hypothesis 3 stated that "strategic alliances that perform work to the satisfaction of the customers are more likely to renew," which was supported by the results of the regression analysis. Hence, if the alliance satisfies the customer (owner), the alliance is more likely to renew, thus, if you want to renew you need not know your partner well, but "know thy customer" (Atkinson 1989).

Hypothesis 4 stated that "strategic alliance partners that are cohesive are more likely to renew," but the hypothesis was not supported. Again, the cohesiveness of all the alliance partners (310) may have been assessed by intricately reviewing the database of the 310 alliance partners to assess cohesion, and, in addition to the cohesion survey completed by 70 alliance partners, this hypothesis may have been supported.

The results of the tests for Hypotheses 5A, 5B, and 5C suggest that the quality of the work for the customer, i.e., satisfying the customer, is critical, and it is regardless of whether the alliance partners are cohesive or not.

It should be noted that not doing work on-time and not doing work on-budget, can still result in customer satisfaction, as these three (3) project descriptors are independent. The three (3) descriptors – time, budget, customer satisfaction – are all critical to project success, i.e., the customer may be very satisfied with the project, even though the project was not on time nor under budget. For example, NYC's Second Avenue Subway, which satisfied the project management team in place when it was finally built, was planned and adjusted for years (not on-time) and also cost much more than ever imagined (not on-budget).

Thus, paper shows with empirical evidence that alliance renewal (sustainability) is definitely dependent on the success of the work that is accomplished for the customer of an alliance.

Research Gaps Toward Future Research

The empirical research presented here is based on one industry (i.e., design-build industry – DBIA database used), but there are many other industries to consider, and many other alliance-types, including for-profit, not-for-profit, public, private, etc., to consider which could resemble other similar entities (e.g., horizontal integration), other dissimilar entities, other conglomerate integration. Hence, more work is to be done, as it is missing from the research presented here.

The DBIA database was comprised of dissimilar entities (design firm and constructor firm), joining forces to accomplish the goals of a customer (owner) of a project. This composition of dissimilar entities joining forces toward a common goal can be considered in a number of ways. For example, Company A needs Company B to produce what Company A produces. In other words, Company A could be dependent on Company B (or vice versa) (resource dependent). Or, Company A and Company B, separately, could be two necessary and equally-important companies to a third entity (Company C) (co-resource dependent, with balanced power among entities). When looking at the diversity of the make-up of alliance pairs of dissimilar entities working for a customer, a whole realm of considerations for future research is possible.

The author hypothesized that alliance renewal is dependent not only on 1) cohesion of the alliance partners, which had been written on before, but also on 2) goal achievement of the customer of the alliance. This dual-axis, from low to high, dichotomous set-up with results falling into four quadrants of a descriptive matrix from the "most-likely sustainable alliance" to the "least-likely sustainable alliance," with the two other quadrants posing trade-offs between the cohesion and goal achievement (Appendix) has the inherent problem of an analysis with only two attributes: Cohesion and Goal Achievement. Many more dimensions of the "alliance-customer relationship" remain to be examined to more fully understand this aspect of alliances.

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Strategic Alliance Renewal as Related to Alliance Partner Outcome and Customer Goal Achievement (© De Feis 2011)

Goal Achievement	Non-Cohesive	Cohesive
Achievement	**Quadrant C** ***Strong Relationship with Customer*** Customer is satisfied with goals; Partners are not satisfied ***– Not sustainable in the Long Run***	**Quadrant A** ***Strongest Relationships with All Parties*** Customer is fully satisfied; Partners are fully satisfied ***– Sustainable in the Long Run***
Non-Achievement	**Quadrant D** ***Weakest Relationships with All Parties*** Neither alliance partner is satisfied, nor is Customer satisfied with strategic alliance ***-- Not sustainable, even in the Short Run***	**Quadrant B** ***Strong Relationship between Partners*** Partners are satisfied with each other; Customer is not satisfied ***– Not sustainable in the Long Run with same customers; may be sustainable with different customers***

Relationship of Alliance