UNDERSTANDING STRATEGIC ALLIANCE LIFE CYCLE: A 30 YEAR LITERATURE REVIEW OF LEADING MANAGEMENT JOURNALS

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Abstract. This paper contributes to the strategic alliance literature by undertaking a literature review of the burgeoning strategic alliance literature published in the last three decades in the mainstream management journals to fulfil two primary objectives. First, to bring a coherent structure into the fairly vast and growing alliance literature and second, to serve as a medium for a holistic understanding of the major life stages of strategic alliances. This is done by first dividing the alliance literature into three distinct yet related alliance life stages namely the pre-alliance stage, alliance formation stage and the alliance management and performance stage, and then by discussing in detail the three alliance stages individually. The paper would be useful for academics as well as practitioners looking to get a holistic understanding of strategic alliances and its three distinct yet related life stages and the key research papers which have been published focussing on each of these alliance stages.

Keywords: strategic alliances, literature review, interorganizational relationships, interfirm partnerships, joint ventures.

JEL Classification: L14, L24.

Introduction

Alliances are becoming increasingly critical for firm growth and even survival in the current competitive environment (Musarra et al., 2016). Firms are entering alliances for a variety of reasons (O’Dwyer & Gilmore, 2018; Panico, 2017) including entry to new markets (Lee, 2007), achieving economies of scale (Inkpen, 2001), getting access to skills and knowledge (Drewniak & Karaszewski, 2019; Hamel, 1991; O’Dwyer & Gilmore, 2018), gaining legitimacy (Hubbard et al., 2018; Lin et al., 2009) and mitigating risk (Inkpen, 2001). Therefore, strategic alliances can potentially provide a lot of value to partnering firms. However, a significant number of alliances fail to meet their stated objectives. It is therefore imperative for academics and practitioners alike to better understand the key issues in strategic alliances. In this context, this paper contributes in two primary ways. First, we provide a coherent structure to the vast alliance literature by dividing the literature into three distinct yet related life stages of an alliance, from the pre-alliance stage to the alliance performance measurement phase. Second, we also discuss the major issues faced by partner firms while going through each of these alliance life stages, thereby providing a big-picture understanding of the various important issues which need to be focussed upon to better understand alliances and thereby enhance the alliance success rate.

Given the enormity of the literature which deals with strategic alliances and its various issues individually or in groups, and the limited yet focussed aim and scope of this paper, we employ the integrative literature review method for the literature review. While doing so, we focus on the leading management journals with a justified assumption that they publish manuscripts of the highest quality and rigour (see Appendix 1). The structure of the paper is as follows. We first describe the research methodology followed in this paper for the literature review. This is followed by a detailed literature review section which gives an overview of the three major stages of the alliance life cycle and discusses the major issues in each of the three alliance life stages instrumental in improving the alliance success rate. The paper concludes with a discussion and conclusion section.

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1. Research methodology

We follow an integrative literature review methodology for this paper (Torraco, 2005). An integrative or critical literature review approach is suitable for situations where there is a substantial amount of literature available and therefore doing a systematic literature review is not feasible (Snyder, 2019). Strategic alliance is a mature domain in the management literature with numerous articles written on different dimensions of alliances. Furthermore, the aim of this paper is limited to providing a brief yet holistic understanding of the three major alliance stages and the major issues therein. Therefore, an integrative review methodology is appropriate for this paper.

The sampling frame in this paper comprises of leading management journals in the last three decades, that is, from the year 1991 to the year 2020 (six articles, published before year 1990, have also been included as these are seminal in nature). We primarily focussed on top-rated management journals written in the English language including Strategic Management Journal, Organization Science, Journal of Management, Academy of Management Review, Academy of Management Journal, Administrative Science Quarterly, Journal of Business Research, International Business Review, European Management Journal, Journal of International Business Studies, Journal of Management Studies, Industrial Marketing Management, Journal of International Management and Scandinavian Journal of Management. Given the vast amount of literature and the limited yet focussed aim and scope of this paper, not all the articles in the search results were included in this paper. Therefore, the findings of this paper should be treated with some reservation. The next section gives an overview of the three major stages of an alliance lifecycle using the literature published in the top-rated journals.

2. Literature on alliances

The alliance literature can broadly be divided into three broad categories (see Figure 1). The first category consists of those studies which explain the motive of firms to enter into inter-firm alliances in terms of their motives and/or necessities, that is, articles on “why” firms come together. The second category consists of studies which try and explain the intricacies of the process of alliance formation that is as Gulati (1998) states, “how” firms enter alliance as compared to the why aspect of the first category. Authors have looked into the issue of partner selection (Gulati, 1995; Hitt et al., 2004; Hitt et al., 2000) and how inter-firm cooperative arrangements emerge, grow and end over a period of time (Ring & Van De Ven, 1994).

The third category consists of those studies which deal with the day to day management and performance issues in alliances. These studies have tried to explain how alliances evolve over a period of time bringing with them their own set of issues. Studies on cooperation between firms (Damanpour et al., 2012; Doz, 1996), inter-organizational learning (Hamel, 1991; Larsson et al., 1998), hybrid organizational perspectives (Borys & Jemison, 1989), behavioural and performance outcomes (Gulati, 1998; Gulati et al., 2000) and the developmental process in cooperative arrangements (Ring & Van De Ven, 1994) come under this category. Literature has also dealt with the effect of alliances on the performance of partner firms (Lin et al., 2009; Nielsen, 2007) and the reasons alliances are maintained in spite of their failure in achieving their goals (Inkpen & Ross, 2001). The following section discusses these three stages in detail.

2.1. Pre-alliance stage (stage 1)

The literature offers a rich account of the motivations surrounding an organizations decision to form a cooperative relationship with other firms (Dong & Glaister, 2006; Glaister & Buckley, 1996). This literature, which discusses the motives of firms to enter into various alliances, can be broadly divided into two major categories. The first category has research that uses a theoretical lens to explain the motives. The second category of research does not employ a theoretical lens per se, rather individual motives or a category of motives to explain the reasons of firms to get into an alliance.

Researchers have categorised motives for the formation of strategic alliances by using multiple theoretical lenses including transaction cost economics (Kogut, 1988), resource dependence theory (Pfeffer & Salancik, 1978), resource-based view (Das & Teng, 2000a), institutional theory (Dacin et al., 2007) and network theory (Gulati, 1998) (see Table 1). Transaction cost economics (Williamson, 1981) happens to be one of the oldest theories in understanding alliances. The basic argument of transaction cost theory is that all economic costs of a firm can be divided into production costs and transaction costs. When a firm tries to decide whether to contract out or produce on its own, market price is not the only aspect that needs contemplation. The transaction cost may prove to be more significant in deciding this classic strategy predicament, that is, whether to make or buy a product or service (Williamson, 1981). So, firms essentially try
An alliance between two firms is a means to utilise the other firm's skills for mutual benefit. So, an alliance is potentially a medium for a firm to utilise and possibly learn skills from the partnering firm that may not be available in the open market (Drewniak & Karaszewski, 2019). Institutional theorists have stressed the importance of legitimacy as a motive for alliance formation (Dacin et al., 2007). Legitimacy is defined as "a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions" (Suchman, 1995, p. 574). The issue of legitimacy is especially relevant for small sized firms when they go beyond their national boundaries. Small firms typically lack any sort of legitimacy in foreign markets making them vulnerable to sudden environmental changes (Lu & Beamish, 2001). Furthermore, they often lack the critical knowledge about foreign markets where they intend to do business (Jansson & Sandberg, 2008; Lu & Beamish, 2001). The resource base of large firms acts as a major inducement for them (Freeman et al., 2006; Knight, 2001). Strategic alliances allow a focal firm to invoke affiliation to a more established and relatively more reputed firm, thereby enhancing the legitimacy of the focal firm (Dacin et al., 2007; Hubbard et al., 2018).

Gulati (1998) contends that economic actions by a focal firm, including entering into a partnership, get influenced by the social network a firm is embedded in. A focal firm's social network is the cluster of social and economic interconnections it has with the other firms. Given the nature of an alliance, where there is lot of uncertainty with respect to multiple factors, including the intent and capability of partners, a network provides a focal firm access to certain information about a potential partner. Based on this information and experience, if a focal firm deems another firm from its network suitable for an alliance, it provides a strong motivation to enter into an alliance (Gulati, 1998; Gulati et al., 2000).

Knowledge-based theorists have stressed the importance of the learning skills of the alliance partners and the tacit knowledge that results from those skills (Buckley et al., 2009; Drewniak & Karaszewski 2019; Hamel, 1991; Larsson et al., 1998). It is well known that of all the possessions that make a firm successful, its skills and capabilities form an important and integral part (Hamel, 1991; Wernerfelt, 1984). This is because many of these skills are causally ambiguous and path dependent and hence give its parent company a sustainable competitive advantage. An alliance between two firms is a means to utilise the other firm's skills for mutual benefit. So, an alliance is potentially a medium for a firm to utilise and possibly learn skills from the partnering firm that may not be available in the open market (Drewniak & Karaszewski, 2019).

### Table 1. Motives for alliance formation (source: adapted from Varadarajan and Cunningham (1995), Yoshino and Rangan (1995) and Glaister and Buckley (1996)

| Underlying Theory          | Specific Motive                                      | Seminal Authors            |
|---------------------------|------------------------------------------------------|----------------------------|
| Transaction Cost          | Evasion of small number bargaining and opportunism   | Kogut (1988)               |
| Economics (TCE)           |                                                      |                            |
| Resource Dependence       | Lack of self-sufficiency leads to dependence, Vertical links | Pfeffer and Salancik (1978), Pfeffer and Nowak (1976), Glaister and Buckley (1996) |
| Theory                    |                                                      |                            |
| Resource Based            | Resource Exchange-Access to complementary/supplementary resources | Das and Teng (2000a), Tsang (1998) |
| View (RBV)                |                                                      |                            |
| Knowledge-Based           | Inter-organizational learning                       | Larsson et al. (1998), Hamel (1991), Gils and Zwart (2004) |
| Theory                    |                                                      |                            |
| Institutional Theory      | Legitimacy                                           | Dacin et al. (2007)        |
| Network Theory            | Social Embeddedness                                  |                            |
|                           | Social Exchange                                      | Gulati (1998), Chetty and Holm (2000) |

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In addition to using a theoretical lens for understanding and explaining alliance motive, there is ample literature which focuses on other types of motives to better explain reasons firms enter into alliances, such as exploitation and exploration, developed country and developing country and also reasons which are specific to certain industries and size of the focal firm (see Table 2). The terms, exploitation and exploration, were first used by March (1991) as motives for organizational adaptation and later extended by Koza and Lewin (1998) to categorise alliance motives and later still to define types of alliances (Koza & Lewin, 2000). Exploitation refers to leveraging existing capabilities efficiently. In case of alliances between two or more firm's exploitation would entail maximising the combined existing pool of resources. Exploration, on the other hand, refers to finding new opportunities for revenue generation (Dan & Zondag, 2016; Koza & Lewin, 2000). Thus, whereas exploitation is associated with competence, performance and better execution, exploration is more associated with innovation and discovery (Dan & Zondag, 2016; March, 1991).
The motives for forming an alliance also differ depending on whether the firm is from a developed or a developing country. This is especially important in the case of international alliances. Firms from a developing economy come from a different institutional environment compared to a firm from a developed economy (Hitt et al., 2000). With a different set of needs and priorities firms from developing and developed economies have different motives for forming an alliance with each other. This issue had not been empirically evaluated until recently (Dong & Glaister, 2006). Hitt et al. (2000) argue that whereas firms from developing economies look for financial and technical resources along with intangible resources/capabilities, firms from developed economies are more interested in local market knowledge and other skills that may help it to expand in that market. In high tech industries such as pharmaceuticals or the aircraft industry, high cost projects are the norm and this gets further complicated due to the complexity of the technology involved (Vyas et al., 1995). There are not only formidable costs attached to a new project but there are always risks involved since there are no guarantees that the project would succeed. Thus, in such high-tech industry sectors, risk mitigation and cost-division are normally the prime motives of entering an alliance.

Table 2. Category of motives for alliance (source: adapted from Oliver (1990) and Gils and Zwart (2009))

| Categories of Motives          | Author                                      |
|-------------------------------|---------------------------------------------|
| Exploitation Vs Exploration   | Koza and Lewin (1998), March (1991)        |
| Developed Vs. Developing      | Hitt et al. (2000), Dong and Glaister (2006) |
| Industry                      | Vyas et al. (1995)                          |
| Firm Size                     | Lu and Beamish (2001), Freeman at al. (2006), Knight (2001) |

Motives differ with the size of the firms as well. In the case of small firms, a dearth of resources is the primary issue. Due to their size, small firms face an internal as well as external lack of resources especially in their effort to expand internationally (Lu & Beamish, 2001). As far as internal resources are concerned, not only do they suffer from lack of economies of scale (Freeman et al., 2006; Knight, 2001) but also from insufficient finance to support their growth initiatives (Jansson & Sandberg, 2008; Meyer & Skak, 2002).

2.2. Alliance formation (stage 2)

The previous section dealt with the conditions that drive firms into entering an alliance. While it is certainly crucial to understand these, it is also important to examine how alliance partners are identified and selected and the types of alliances that are formed. After a decision to enter an alliance is made by a firm the next critical step is the selection of an appropriate partner since it determines the resource base that would be available to the focal firm and the alliance (Parkhe, 1993). Network theorists have argued that the perspective alliances between firms are often either the direct result of, or at least get influenced by, previous inter-organizational ties between the same pair of firms (Gulati, 1995; Larson, 1992; Uzzi, 1997).

In his studies Gulati (1995, 1998) has found that for a firm, the first avenue for a partner selection is almost always the web of partners that it has already dealt with and thus firms should not be seen in an atomistic perspective. Organizations are swayed by their past relationships with other firms and are tempted to forge a relationship with a firm in that network due to the reasonable degree of trust that it offers (Gulati, 1998; Todeva & Knoke, 2005). Thus, rather than an atomistic view, a relational view (Gulati, 1998; Gulati et al., 2000) is better suited to understand and explore alliances between firms. In a related work, Ger-inger (1991) divides the alliance partner selection process in two groups: task related criteria and partner related criteria. Task related criteria refer to the strategic fit between two firms with respect to resources and capabilities. Partner related selection criteria, on the other hand, refers to the organisational fit and deals with the issues of compatibility, organisational fit and trust (Dong & Glaister, 2006).

In addition to the selection of an appropriate partner, the other important issue to be considered during the alliance formation phase is the type of alliance to be formed. The literature on the categorisation of alliances in academia can be primarily divided into two distinct types. Authors have either (i) defined the categories (see Table 3), based on factors such as equity/value chain/level of commitment that basically categorise the nature of the partnership (e.g. Dussauge & Garrette, 1999; Koza & Lewin, 2000; Lei & Slocum, 1991; Sorensen & Reve, 1998) or (ii) they have simply listed the various forms of alliances prevalent in the industry without actually categorising them (e.g. Inkpen & Ross, 2001; Oliver, 1990; Todeva & Knoke, 2005) (see Figure 2).

In categorising alliances, perhaps the simplest classification is based on equity that is whether partner firms hold an equity position in the venture or not. Varadarajan and Cunningham (1995) describe two distinct categories: equity alliances and non-equity alliances (that is contractual alliance). In an equity alliance partner firms contribute not only resources but also hold an equity position. A common example can be a joint venture where two firms combine their equity in variable proportions to create a new distinct organization (Lei & Slocum, 1991; Oliver, 1990). An equity alliance can also be formed when a firm acquires equity shares in another firm. In this case although equity does get exchanged, no separate organization gets formed. In a non-equity alliance, the commitment is limited to resources and skills. The partner firms do not hold an equity position in the venture (Varadarajan & Cunningham, 1995). Both equity and non-equity alliances have their pros and cons. So, whereas equity
alliances take a longer time to materialise they provide better control over their functioning compared to contractual alliances. Furthermore, although knowledge transfer is better in equity alliances, contractual alliances offer lower exit costs (Arino, 2003).

Table 3. Categories of alliances (source: adapted from Gils & Zwart (2004))

| Categories                        | Differentiating Factor       | Authors                                |
|-----------------------------------|------------------------------|----------------------------------------|
| Equity vs. Non-Equity             | Whether equity is involved in alliance or not | Varadarajan and Cunningham (1995), Glaister and Buckley (1996) |
| Horizontal and Vertical           | Level of value chain         | Varadarajan and Cunningham (1995)     |
| Rival vs. Non-Rival firms         | Partner a competitor?        | Dussauge and Garrette (1999)           |
| Supplementary, Surplus, Complementary and Wasteful | Resource Combination | Das and Teng (2000b)                   |

Another basis of defining categories is at what level of the value chain the partnering firms operate. Varadarajan and Cunningham (1995) describe two broad categories here: horizontal and vertical alliances. Horizontal alliances happen when firms operating at the same level of value chain collaborate for achieving a common goal. An example of this can be when two firms collaborate in jointly developing a technology that can then be used in developing their own separate products. This may be done to offset the high R&D costs involved in developing the technology. Vertical alliances are formed between firms operating at adjacent levels of the value chain, for example between a manufacturer and a retailer. The manufacturer gets a guaranteed buyer for its produce along with the retail space that can act as an advertising mechanism in its own way whereas the retailer may get a discounted and to a certain extent guaranteed supply of products (Varadarajan & Cunningham, 1995).

Dussauge and Garrette (1999) categorise alliances by distinguishing between alliances among rival firms and those between non-rival firms. The basic premise of an alliance between non-rival firms is to compensate partners in areas where they are lacking so that mutual gains may be realized. Four main categories here are international cooperative agreements, vertical partnerships, cross industry agreements and alliances between rival firms. The authors contend that this type presents itself as a paradox since rival firms are supposed to compete. In addition, this kind of alliance may also raise antitrust issues since an alliance between competitors may prove to be detrimental to the end consumers’ interests. Depending upon the asset base of the partners, this type of alliance...
can be grouped into complementary, shared supply and quasi concentration. A complementary alliance is formed when two firms with different and complementary skills base come together. In a shared supply alliance, partners join forces to create economies of scale to craft a basic product that is then separately configured by each of the participants according to their individual requirements. A quasi concentration alliance is similar to shared supply, the only difference being that the final product is similar for all the partners.

From a resource-based view, Das and Teng (2000b) categorise alliances into four types: supplementary, surplus, complementary and wasteful, depending upon whether the firms involved bring similar or dissimilar resources (see Table 4). If firms bring similar resources to build scale there can be two possible alignments. Supplementary alignment happens when firms bring resources together that are not only similar but also performing. This means that the alignment of resources does not leave any excess resources remaining idle. In the case when there is a portion of resources that remain unused the resource alignment is surplus or there is slack. Slack can be understood as “the pool of resources in an organization that is in excess of the minimum necessary to produce a given level of organizational output” (Nohria & Gulati, 1996, p. 1246).

Table 4. Inter-partner resource alignments (source: Das & Teng (2000b, p. 49))

| Resource Similarity | Resource Utilization |
|---------------------|----------------------|
|                     | Performing Resources | Non-Performing Resources |
| Similar Resources   | Supplementary        | Surplus                  |
| Dissimilar Resources| Complementary        | Wasteful                 |

The second type of alignment is when firms pool together dissimilar resources. According to Das and Teng (2000) there are again two types here depending upon the utilization of resources. Complementary alignment happens when not only the resources are different but are also utilized effectively. In contrast in a wasteful alignment the resources cannot be efficiently combined due to a variety of reasons such as organization structure and organizational culture. A wasteful alignment is similar to a surplus alignment in that a certain bundle of resources remains unused. What makes them different is that surplus alignment may be done intentionally to promote innovation (Nohria & Gulati, 1996) whereas wasteful alignment is generally not done intentionally and does not produce any advantages.

As described before, in describing the types of alliances, literature has also listed various types of alliances that are prevalent in the industry, without any specific categories per se. Extant literature has discussed the major types of partnerships based on the intensity of the partnership (Yoshino & Rangan, 1995). Ranging from an arm’s length partnership to an acquisition (see Figure 2), interfirm partnerships could differ widely in the intensity of the relationship between alliance partners (Kale & Singh, 2009). Consequently, not all transactions can be termed strategic and given the same importance by firms (Glaister & Buckley, 1996; Kale & Singh, 2009). This is because doing so would not only make it unmanageable for firms to meaningfully manage all relationships but more importantly would nullify the whole idea and significance of the term strategic. It thus becomes particularly important for firms to segregate those collaborations that are strategic to its survival from those that, although important, are not indispensable.

Yoshino and Rangan (1995) list the following three necessary and sufficient conditions for an inter-firm relationship to be termed a strategic alliance: (i) The partners remain independent following the alliance, (ii) The partners share the benefits as well as the management and control of assigned tasks and (iii) The partners contribute on a continuing basis in one or more strategic areas. In this context, Varadarajan and Cunningham (1995) argue that cooperative relationships between firms can either be operational or strategic. An operational cooperative relationship is done primarily to streamline and restructure an activity. Although it does improve a firm’s efficiency in that particular activity it does not provide the firm with a sustainable competitive advantage. A strategic alliance, on the other hand, is an inter-firm cooperation that provides partnering firms with sustainable competitive advantage (Gomes et al., 2016; Varadarajan & Cunningham, 1995). In this context, it is generally agreed that of all the possible inter-firm partnerships from an arm’s length relationship to an acquisition, the relationships that may genuinely be termed as strategic alliances range from joint contracts to joint ventures (see Figure 2).

A joint venture is a distinct legal corporate entity that two or more firms create to enhance their marketing/technological/R&D knowledge (Kogut, 1988; Oliver, 1990). A joint venture is characterized by the creation of a new and common legal organization by two or more partnering firms (Kogut, 1988; Lei & Slocum, 1991). Although a joint venture is a separate legal entity, it is ultimately an agreement between its partners and thus answerable to them (Borys & Jemison, 1989) although the degree of influence may vary depending upon the percentage of resources contributed, the size of respective parents or on other factors (Anand & Khanna, 2000). This may at times prove detrimental to the motivation level of the staff due to divided loyalties between the venture and their own organizations. Furthermore, there are no straightforward guidelines as to the level of authority the management of the venture has over the individual partners and vice versa (Borys & Jemison, 1989).

An equity investment is essentially a firm buying a stake in another firm to increase its leverage in that firm and hence its resources. It may be that the firm holds resources that, either already are, or can be in the future, beneficial for the buying firm (Varadarajan & Cunningham, 1995). Joint agreements in the areas of research and
development, marketing and manufacturing are another type of strategic alliances wherein firms pool their resources together (Demirbag & Glaister, 2010; Rothaermel & Deeds, 2006). This is done either because firms don't individually possess the capital or the resource base to conduct it and/or the risks involved in the case of failure are too high for conducting it in the first place.

2.3. Alliance management and performance (stage 3)

2.3.1. Alliance management

The mere formation of an alliance does not mean that the goal has been achieved. Far from it, the real issues emerge after an alliance has been formed. Due to its nature an alliance offers flexibility that on one hand makes it highly desirable as a medium of interaction (Glaister & Buckley, 1998) but is also plagued by possible opportunism on part of the partners involved and the resulting distrust and anxiety, due to its supple framework (Gulati, 1998; Parkhe, 1993). The progress of the alliance entails a good amount of its own peculiar issues and challenges that are the raison d'être why a large number of alliances fail.

Once the decision to enter into an alliance is agreed by the partner firms and the contract is signed it is the management phase that runs until the alliance finally ends. While the partner firms consider and take care of the more obvious compatibility issues (such as resource complementarity, motive compatibility, alliance structure and contractual terms) during the pre-formation and formation phases (Gulati, 1998; Reuer et al., 2002), it is the management phase where the more nuanced differences come to the forefront that typically make or break an alliance (Gomes et al., 2016). These issues include cultural differences, differences in motives with changing internal and external conditions (Hitt et al., 2000) and alliance boundary issues (Borys & Jemison, 1989). It is therefore no wonder that the alliance management phase has been compared to “stirring concrete with eyelashes” (Anand & Khanna, 2000, p. 295).

In the area of alliances, literature has given particular prominence to the independence of the partners (Gulati, 1995; Sørensen & Reve, 1998; Yoshino & Rangan, 1995). From this comes the primary benefit of an alliance that is leveraging only those resources of a partner firm those are useful without inheriting the unnecessary resources that may prove to be liabilities. Thus, unlike an acquisition or a merger where all the resources are de facto inherited by the parent company, an alliance offers the advantage of selective usage of a partner firm’s resource base (Inkpen, 2001). Thus, alliances are useful in situations where a firm intends to utilise only a portion of another firm’s resources. Borys and Jemison (1989) argue that two sets of issues can be of concern here. First is the level of leverage each of the partner has over the resources of the cooperative venture. Secondly the level of leverage the cooperative venture has over the resources of the partners which may also present a conflict situation. This perplexity in the ownership of the alliance resources presents itself as a prospect for possible opportunism on part of the partners. Even in cases where all partners are sincere towards the project, misconceptions may arise. Thus, the boundary determination needs to be handled in a clear-cut manner and with delicacy since it may cause the demise of the whole project (Borys & Jemison, 1989).

Due to the alliance framework where partnering firms are independent outside the alliance, complexity may arise in terms of the purpose of alliance, since participating firms have diverse and sometimes conflicting range of goals (Dussauge & Garrette, 1999). Purpose is a vital part of the whole cooperative venture in that it offers a direction that the partners can follow (Borys & Jemison, 1989). The authors contend that scope of purpose may prove to be a source of contradiction. A broad purpose may provide a common platform for all the partners to work together, but it may also cause conflict of interests, due to its level of generalization, on smaller day to day issues. On the contrary although a narrow purpose may offer an unambiguous and unequivocal idea of the day to day working, it may deprive the project the chance of exploiting alternative productive areas due to decreased scope of the project resulting in lesser cooperation among partners (Borys & Jemison, 1989).

Inter-organizational learning, though a motive for forging alliances, is also a major management issue that needs to be dealt with in an effectual manner (Musarra et al., 2016). Hamel (1991) argues that there is a distinction between gaining access to the skill base of a partner firm via arrangements such as licensing and actually learning those skills or “internalizing” it. Getting access implies that although the skills of the partner can be used in the alliance, they are not available outside the alliance (Drewniak & Karaszewski, 2019). On the other hand, in the latter case, the firm in question actually becomes skilled itself giving it the advantage of using that skill outside the alliance, as it deems necessary. This endangers the competitive position of the other partner firm.

2.3.2. Alliance performance

Although alliance performance has received a significant amount of research interest, there is still a lot of complexity and vagueness that surrounds the topic (Glaister & Buckley, 1998; Li et al., 2017; Nielsen, 2007; Richard et al., 2009). Perhaps one of the major reasons for this is that measuring alliance performance has proven to be an exceptionally perplexing task not only because of the logistical issues in collecting such data (Gulati 1998; Lunnan & Haugland, 2008) but more importantly because researchers are themselves divided over what constitutes an alliance success and thus what data to collect in the first place (Inkpen, 2001; Nielsen, 2007; Ren et al., 2009). In this context Glaister and Buckley (1998) argue that there is a lack of understanding between indicators and determinants of alliance performance. There are thus not only...
methodological but theoretical issues as well in measuring alliance performance (Christoffersen, 2012; Inkpen, 2001). Alliance performance has also proven to be a difficult construct to measure primarily due to the multifaceted nature of alliances whose performance is to be measured (Ren et al., 2009). Organizational performance can be measured either by asking well informed management executives of the firm as to how well the firm is doing, that is subjective performance, or it can be measured objectively via company data including secondary data like return on investment or share price fluctuation (Glaister & Buckley, 1998; Li et al., 2017; Liu & Hsiao, 2019). There are pros and cons attached to each of the above two approaches. Subjective performance is easier to measure and encapsulates the opinion of the management. Alliances are dyadic in nature and hence there is the possibility that one firm achieves its objective while the other does not (Gulati, 1998). Measuring performance objectively would entail collecting data from all the firms involved. Subjective data on the other hand can be gathered from one knowledgeable source (for example by asking a focal firm’s executive about partner firms’ performance). The downside is that it can be biased since it basically maps the opinion of the firm’s executives and is bound to have a varying degree of human bias involved. Furthermore, the range of factors that individual executives consider as success may differ significantly. Objective data on the other hand is based on facts and thus relatively unbiased. Due to this it does not take into account certain latent performance aspects that may not be visible in the current data set and may have an effect on future performance. Besides objective measures may not exist for certain intangible outcomes which can be more important than tangible outcomes.

Although these two ways represent different ways of measuring performance, they have been shown to have a decent degree of correlation of between 0.4 to 0.6 (Richard et al., 2009) with values as high as 0.81 (Guthrie, 2001). An ideal way would be to measure performances both subjectively and objectively but this task is both time consuming and difficult. This is true in the case of small firms where secondary data is almost impossible to find as compared to larger firms who regularly publish their data. Subjective data thus is an optimum way to follow under this situation.

Discussion and conclusions

This paper has contributed to the strategic alliance literature by conducting a review of the alliance literature, primarily in the last three decades, to fulfil two primary objectives. First, to provide a cogent structure to the vast alliance literature by dividing the literature into three major stages of an alliance lifecycle namely the pre-alliance stage, the alliance formation stage and the alliance management and performance stage. Second, to discuss the three stages individually along with the inherent issues in each stage thereby providing a brief yet holistic understanding of the alliance life cycle. In doing so, this paper provides valuable insights into the key issues and landmines that alliance managers need to be aware of in order to enhance the success rates of their alliances.

It is stating the obvious that firms need to persistently improve their product and service offerings in order to survive, let alone prosper (Panico, 2017). This entails expending significant resources on a variety of areas including modern manufacturing techniques, marketing and research and development. The increasing technological complexity of modern products and services and their increasingly shortening life-cycles requires capital and expertise that may not be openly and readily available within the organization (Dyer & Singh, 1998). In some sectors such as biotechnology, pharmaceuticals and aerospace, R&D expenses can be the single largest area for investment. It becomes evident that firms need to collaborate with other firms, sometimes even with their direct competitors to not only pursue future opportunities but increasingly to safeguard their existence (Panico, 2017). Strategic alliances and partnerships can be an important source of competitive advantage for firms involved. Alliances assist firms in getting outside resources with minimum transaction costs helping them to strengthen their competitive position (Das & Teng, 2000a; Dyer & Singh, 1998; Ireland et al., 2002). Furthermore, in the present turbulent and uncertain environment firms often look for fewer binding arrangements that they may get out of in case their objectives don’t get realized (Young-Ybarra & Wiersema, 1999).

Although this paper aims to provide a timely review of the alliance life cycle, there are some limitations to this study. First, the methodology of finding relevant alliance research was primarily keyword driven and favoured better rated journals. Therefore, interesting research in some other journals could not be included. Second, although alliance termination and exit could be considered as an important phase at the end of an alliance (Dan & Zondag, 2016), it could not be included here given the limited mandate of this paper. Third, all the topics and issues addressed in this paper almost certainly deserve more discussion. However, given the primary objective of this paper is to provide a broad understanding of the different stages of an alliance, more detailed discussion could not be accommodated. Future research could be directed at each of these three limitations to further strengthen the alliance literature.

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APPENDIX 1

List of journal articles included in the literature review

| S.No. | Name of Journal | ABDC 2019 List | Number of articles | Authors |
|-------|-----------------|----------------|--------------------|---------|
| 1     | Strategic Management Journal | A* | 13 | Panico (2017), Lin et al. (2009), Dacin et al. (2007), Anand and Khanna (2000), Doz (1996), Gulati (1998), Gulati et al. (2000), Kogut (1988), Lu and Beamish (2001), Lunnan and Haugland (2008), Reur et al. (2002), Wernerfelt (1984) |
| 2     | Organization Science | A* | 6 | Hitt et al. (2004), Das and Teng (2000a), Koza and Lewin (1998), Larsson et al. (1998), March (1991), Young-Ybarra and Wiersema (1999) |
| 3     | Journal of Management | A* | 6 | Das and Teng (2000b), Ireland et al. (2002), Ren et al. (2009), Richard et al. (2009) |
| 4     | Academy of Management Review | A* | 5 | Borys & Jerimson (1989), Dyer & Singh (1998), Oliver (1990), Ring & Van De Ven (1994), Suchman (1995) |
| 5     | Academy of Management Journal | A* | 5 | Hubbard et al. (2018), Guthrie (2001), Hitt et al. (2000), Nohria & Gulati (1996), Parkhe (1993) |
| 6     | Administrative Science Quarterly | A* | 4 | Gulati (1995), Jeffrey & Phillip (1976), Larson (1992), Uzzi (1997) |
| 7     | Journal of Business Research | A | 4 | Snyder (2019), O’Dwyer & Gilmore (2018), Li et al. (2017), Lee (2007) |
| 8     | International Business Review | A | 4 | Gomes et al. (2016), Chetty & Holm (2000), Dong & Glaister (2006), Nielsen (2007) |
| 9     | European Management Journal | B | 4 | Gils & Zwart (2004), Glaister (2004), Koza & Lewin (2000), Meyer & Skak (2002) |
| 10    | Journal of International Business Studies | A* | 2 | Arino (2003), Geringer (1991) |
| 11    | Journal of Management Studies | A* | 2 | Demirbag & Glaister (2010), Glaister & Buckley (1996) |
| 12    | Industrial Marketing Management | A* | 2 | Dan & Zondag (2016), Musarra et al. (2016) |
| 13    | Journal of International Management | A | 2 | Jansson & Sandberg (2008), Knight (2001) |
| 14    | Scandinavian Journal of Management | B | 2 | Sørensen & Reve (1998), Tsang (1998) |
| 15    | Academy of management perspectives | A | 1 | Kale & Singh (2009) |
| S.No. | Name of Journal                        | ABDC 2019 List | Number of articles | Authors                        |
|------|---------------------------------------|----------------|-------------------|-------------------------------|
| 16   | British Journal of Management         | A              | 1                 | Buckley et al. (2009)         |
| 17   | Asia Pacific Journal of Management    | A              | 1                 | Damanpour et al. (2012)       |
| 18   | Organization Studies                  | A*             | 1                 | Glaister & Buckley (1998)     |
| 19   | Asia Pacific Journal of Management    | A              | 1                 | Damanpour et al. (2012)       |
| 20   | California Management Review          | A              | 1                 | Inkpen & Ross (2001)          |
| 21   | Journal of International Marketing    | A              | 1                 | Freeman et al. (2006)         |
| 22   | Journal of Business Venturing         | A*             | 1                 | Rothaermel & Deeds (2006)     |
| 23   | International Journal of Management Reviews | A          | 1                 | Christoffersen (2012)         |
| 24   | Human resource development review     | B              | 1                 | Torraco (2005)                |
|      | Total                                 |                | 71                |                               |